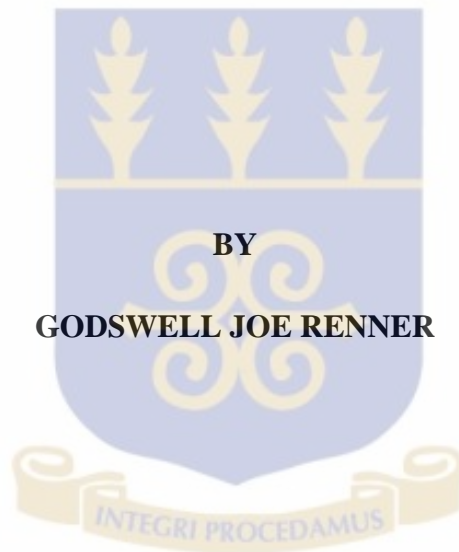


**REGIONAL INSTITUTE FOR POPULATION STUDIES
UNIVERSITY OF GHANA**

**SOCIO-ECONOMIC DIFFERENTIALS OF UNEMPLOYMENT IN
GHANA, 2000 AND 2010**



This dissertation is submitted to the University of Ghana, Legon in partial fulfilment of the requirements for the **MA Population Studies** degree.

JULY, 2014

ACCEPTANCE

Accepted by the Faculty of Social Sciences, University of Ghana, Legon in partial fulfilment of the requirements for the award of the M.A. (Population Studies) degree.

Supervisor



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DR. NAA DODUA DODOO

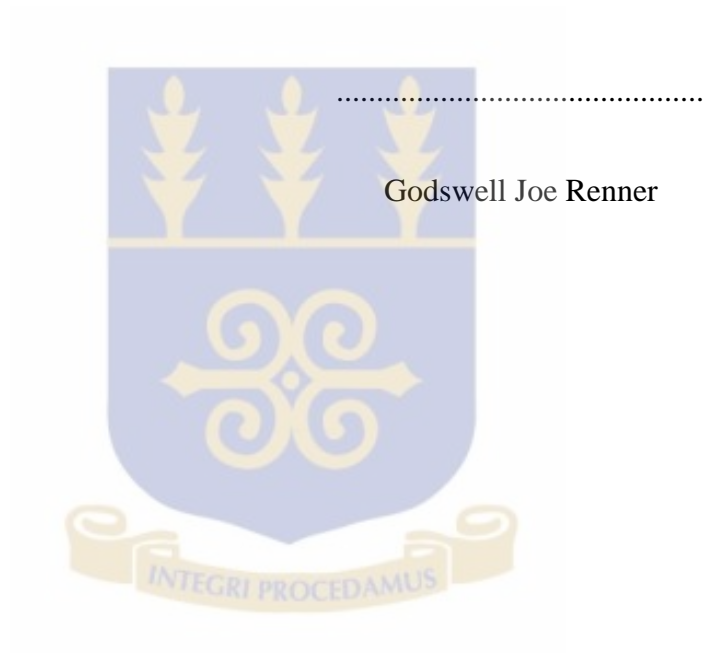
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DECLARATION

I, Godswell Joe Renner, hereby declare that except for the references of other people's work which have been duly acknowledged, this dissertation is the result of my own research work carried out at the Regional Institute for Population Studies, University of Ghana, Legon under the supervision of Dr. Naa Dodua Dodoo.

Signed



Date

.....

DEDICATION

This work is earnestly dedicated to my mother, Monica Olivia Acquah.



ACKNOWLEDGEMENT

This study has been successful owing to the grace and favour of the almighty God and diverse personalities who assisted me in several ways. My sincere appreciation goes to Dr. Naa Dodua Dodoo, my project supervisor for her frequent advice; guidance and constructive criticism which empowered me to finish this work.

My profound gratitude also goes to my mother, Monica Olivia Acquah, for her support and guidance throughout the duration of this work. I would also like to acknowledge the entire team of RIPS for their support.



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ABSTRACT

This dissertation uses data from the 2000 and 2010 Ghana Population and Housing Censuses on the active labour force aged 15-64 years and carries out a comparison of 2000 and 2010 regarding the socio-economic differences associated with unemployment in both years. It examines the variation between the unemployed in 2000 and 2010 in terms of their level of education and place of residence and investigates the factors that explain these variations.

The study sampled a total of 828,048 and 1,153,395 respondents of age 15-64 years in the 2000 and 2010 Population and Housing Census data respectively and run two separate models to observe the statistical association between levels of education and unemployment and place of residence and unemployment in 2000 and 2010. Another model was further run to observe the statistical association between the two independent variables (level of education and place of residence) together with the six control variables (age, sex, migration status, marital status, religion and ethnicity) and unemployment in 2000 and 2010.

It tested the hypothesis that unemployment in Ghana is associated with people with no education. Again, unemployment in Ghana is associated with urban residents relative to their rural counterparts. Inter alia, the study found that respondents with primary and secondary education are more likely to be unemployed compared to their counterparts with no education in 2000. But in 2010 respondents with secondary and tertiary levels of education were more likely than those with no education to be unemployed. It found education to be statistically significant in both years. The study also confirmed that Ghana's unemployment is more prevalent in urban than rural areas.

The study recommended that, the high youth unemployment which coincides with the transition from various levels of education to the world of work be managed with pragmatic policies such as apprenticeship and start-up capital so as to reduce the proportion of unemployed youth. Ghana can as well resort to provision of entrepreneurial training and start-up support would attract these young secondary school leavers into setting up small enterprises and grow them gradually.

The high proportion of migrants which is rapidly urbanizing our cities has contributed to the high unemployment prevalence in the country. Hence, the study suggested both 'job creation' and 'job expansion' to address the unemployment incidence in these urban areas. Job expansion would ensure the absorption and balance with the growth of the unemployed population.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

As the world faces serious job deficits, the issue of persistent increase in unemployment has climbed to the top of policy concerns in the world in recent years (Assaad et al, 2000). Figures from ILO appear frightening as global unemployment remained elevated in 2011, with more than 197 million unemployed around the world, a figure unchanged from the year before and still nearly 27 million more than in 2007 (ILO, 2012). The number of unemployed around the world increased by 5.8 million in 2008 and then surged by more than 21 million in 2009, an increase from a rate of 5.5 percent to 6.2 percent. Global unemployment remains stuck at a rate of around 6.0 percent, despite rapid economic growth of 5.1 percent in 2010 and 4.0 percent in 2011. Baseline projection showed no change in the global unemployment rate, which led to an additional 3 million unemployed around the world, giving a total of 200 million in 2012. Further estimations show that global unemployment would rise to 212 million by 2014 and remain elevated through at least 2016 (ILO, 2012).

Some studies from around the globe have shown the worsening cost if the trend continues. This cost of unemployment is of direct effect on the individuals, families as well as to the society as a whole. Using German data on The Psychological Impact of Past Unemployment, Clark et al., (2001) found that the adverse psychological effect of being unemployed is persistent: unemployment experienced in the past makes an individual less satisfied with his current life situation even if he has become re-employed in the meantime. Also, unemployment diminishes the well-being of everyone, not just of the unemployed. Using data on 12 European countries and

the United States, Di Tella et al, (2001) found that unemployment depresses well-being almost twice as much as inflation does. In subsequent research using the same data, Di Tella et al. (2003) found that, although the effect on someone who actually loses his job is 20 times larger than the effect on someone who remains employed, the indirect losses in well-being are larger, in aggregate, because they affect more people. There is additional evidence that unemployment increases crime. Using US data, both Raphael and Winter- Ebmer (2001) and Lin (2008) found strong effects of unemployment on property-crime rates. According to Lin (2008), a percentage rise in unemployment increases property crime by 4 percent to 6 percent. Rege, Telle and Votruba (2012) also documented a 14 percent higher probability of arrest among workers affected by plant closure. It is also well noted in most literature that long spells of unemployment erode the technical and social skills of those who are out of work, reducing their employability (Rege et al., 2012). The longer someone remains out of a paid job, the less attractive he becomes to a potential employer (Edin and Gustavsson, 2008). Thus unemployment may become persistent, causing a permanent loss of human capital and potential output.

The most severe impact of unemployment is its early mortality impact linked to the unemployed. Sullivan and von Wachter (2009) found that the mortality consequences of displacement are severe with 50 to 100 percent increase in death rate the year following displacement and 10 to 15 percent increase in death rate after the next 20 years. Which means, for a 40 year old worker, this implies a decline in life expectancy of a year to a year and half. Long term unemployment results in higher mortality (Couch et al., 2013). The mechanism for these mortality increases is unclear but could be related to income losses (Browning and Heinesen, 2012) and losses of health insurance coverage (Olson, 1992).

For most African countries, unemployment rates remained almost unchanged even during the recent growth upturn that ended in the second half of 2008. In 1998 and 2008, the total unemployment rate was 7.4 percent and 7.6 percent in sub-Saharan Africa and 12.8 percent and 10 percent in North Africa respectively (ILO, 2009b). As a result of the global crisis, the unemployment rate was estimated to have risen in 2009 to an average of 8.2 percent in sub-Saharan Africa and 13 percent in North Africa, hence, depicting how alarming the situation is on the continent. The worst-affected groups in Africa's job crisis are women, young people, the disabled and the elderly. Women workers dominate the informal sector with only a small but growing percentage of population working in the formal sector. In 2008, unemployment among women ranged between 15 percent in North Africa and 8.2 percent in sub-Saharan Africa (ECA, 2010).

While the study strives to take a global perspective on unemployment challenges, the focus in this dissertation is on Ghana, a middle income country, where there is a relentless increase in unemployment among its active labour force (ECA, 2010). This is also a country where unemployment challenges are likely to be associated with the socio-economic challenges posed by growing populations in recent decades (Sackey and Osei, 2006). Unemployment rates in the Ghanaian economy have varied substantially across time. This variation in unemployment may occur as a result of variation in the rate at which workers flow into the unemployment pool, variation in the rate at which unemployed workers exit the unemployment pool, or a combination of the two (Elsby, Hobijn & Sahin, 2011). The rate in Ghana has ranged from 2.8 percent in 1984 to 10.4 percent in 2010 based on population and housing census data and within the range of 2.3 percent in 1991/92 and 3.1 percent in 2005/06 based on Ghana Living Standards Survey (GLSS) dataset. From gender perspectives unemployment in Ghana does not show a clear pattern of

difference between the two sexes. The rate was higher for women than men in 1991/92 while the reverse was the case in 1998/99 and 2005/06 (Baah-Boateng, 2014). Estimates from the 2000 and 2010 Population and Housing censuses indicate a rate of 10.7 percent and 6.3 percent respectively for females compared with 10.1 percent and 5.4 percent for males (GSS, 2010). The higher unemployment rates among women than men in recent times has been attributed to the increasing desire of women to participate in market work reflecting in the consistent increase in the labour force participation rate of women against the backdrop of fewer employment opportunities (Baah-Boateng, 2012).

Ghana's unemployment is also found to be more prevalent in urban than rural areas. The rates were thirteen times higher in urban areas in 1991/92 and more than four times higher in 1998/99 and 2005/06 than in rural areas (Baah-Boateng, 2014). According to Baah-Boateng, the regular migration of people, particularly the youth, from rural areas to the urban areas in search of better economic prospects which are not easy to come by, largely explains the phenomenon of the high urban unemployment rate in Ghana. The non-attraction of rural life due to the nonexistence of amenities such as electricity and potable water among other things and the low income associated with rural economic activity, dominated by farming, also tend to push many rural youth into the cities.

There is a higher rate of unemployment among the educated than the uneducated in Ghana. The highest unemployment rates in 1991/92 and 1998/99 were reported among those with tertiary education followed by secondary school leavers while those with no formal education have the lowest rate. In 2005/06, those with secondary education experienced the highest unemployment rate followed by tertiary graduates while non-educated people experienced the lowest rate (Baah-Boateng, 2014). The low unemployment rate among the uneducated and those with basic

education is largely explained by the fact that, with limited or no access to formal employment, these people clearly have no option than to settle with informal agriculture and non-technical jobs which do not require any formal education. In 2010 the country recorded a rate of 5.8 percent of unemployment among the uneducated group which was still lower than that of the population with secondary and tertiary education. The non-attractiveness of informal sector employment also explains the higher unemployment rates among those with secondary and tertiary education.

In this context, it is of vital importance to indicate the socio-economic variations, level and trends which tend to shape the structure of unemployed population at different points in time and its dynamics in order to enhance proper design of social and economic policy models to address the phenomenon. It is against this background that this dissertation seeks to contribute to the on-going global debate on the subject of unemployment over the last decade with respect to Ghana; as it attempts to examine the phenomenon to get a better understanding of the mechanisms that are driving the unemployment differentials in the country.

1.2 Problem Statement

Comparably, unemployment rate in Ghana has remained generally lower than the world average of 7.3 over the years (ILO, 2012) ranging from 2.8 percent in 1984 and increased to 10.4 percent in 2000 and declined to 5.3 percent in 2010. The unemployment rates were higher in the urban areas than the rural areas for the total as well as among males and females in the two last censuses: 2000 and 2010 (GSS, 2010). Even though the rate has been widely acknowledged and reported in Ghana, comprehensive documentation and empirical analysis exploring its nature and extent as well as the underpinning factors regarding the unemployment situation are scarce (King

et al., 2006). This may be a reason why most unemployment targeted policies appear to have failed to achieve its desired objectives in the county. This is because most of these policies are not rooted in evidence-based arguments to meet the objectives.

For instance, the Ministry of Trade and Industry (MOTI) in the 2010 Ghana Industrial Policy did acknowledge the problem of inadequate skills-relevant human resource base confronting all the sectors of industrial development in Ghana (Bawakyillenuo et al., 2013); a situation which is a major contributor to the country's persistent unemployment burden. Knowing of the unemployment phenomena as a developmental challenge, a number of measures have been introduced to enhance the employability in the country. First, in order to send the message with respect to the vital role of employment in the nation's development agenda, the Ministry of Manpower Development and Employment, now Ministry of Manpower, Youth and Employment aimed at refocusing its policies and programmes to support youth employment with the institution of the National Youth Volunteer Programme by the Ghana National Service Scheme; the enactment of a new Labour Law (Act 561) to ensure a more flexible labour market environment and also the enactment of the Disability Bill to address the employment needs of persons with disability (Amankrah, 2012). Furthermore, it was expected that general policy initiatives such as the Growth and Poverty Reduction Strategy Programmes (GPRSP II) which provide a blueprint for the nations' development agenda, the pro-poor decentralization and good governance reforms, the Rural Enterprise Project, Alternative Livelihood Programme, the Village Infrastructure Project (VIP) and projects implemented by the Social Investment Fund (SIF) would help support the enhancement job creation but did not avail.

Further, a labour market policy was put in place with the introduction of the Skills Training and Employment Placement (STEP) Programme, as a response to the results of the registration

exercise of 2001. The programme, which was fully funded by government, trained a total of 27,500 people at a cost of ₵26.4 billion (US\$3 million) during the two phases of the programme implementation from 2003 to 2005. The second phase of the programme implementation had a micro finance component of ₵11.5 billion (with US\$1.31 million to support enterprise development for the graduates of the training programme) (Amankrah, 2012).

Notwithstanding these efforts, unemployment continues to be a concern even in the face of the current decline in rate from 10.4 percent in 2000 to 5.3 percent in 2010 (GSS, 2012). Equally disturbing of its persistency is its consequential effects on society deepening the incidence of poverty.

Based on the imperativeness of the subject matter, this study seeks to examine the overall characteristics of unemployment within Ghana's labour market and the factors underpinning it. This study is necessarily selective as it endeavours to provide substantial understanding of the unemployment variations, levels and by comparing socio-economic differentials of unemployment between 2000 and 2010 and the mechanisms driving the situation in the country, an area of which literature has devoted no attention to helps us understand. It is this gap that the study sought to fill.

1.3 Rationale of the Study

The inability of jobseekers to secure gainful employment tends to create disaffection among these people and causes some of them, especially the youth, to resort to social vices such as robbery, prostitution and political unrest. Indeed, unemployment constitutes underutilization of human resources and the failure to prevent these resources going to waste does not only make them vulnerable to poverty but is also a loss of potential income tax revenue to the nation. It is

therefore vital to understand the socio-economic variations which in turn determine the incidence of Ghana's unemployment.

Pertinently, this study seeks to unravel the elements of unemployment with respect to its socio-economic characteristics in the country. By so doing, the study will contribute to unearthing the key issues surrounding unemployment in the country, thereby serving as a basis to improving the relevance of policy formulation in accordance with the employment needs of the people among various groups and areas of residence in alignment with the needs of the labour market. It will as well help generate new ideas for developing interventions to link education, industry and the employment sectors of the country's development policy agenda.

The study, through a scientific analysis, will provide useful information for policy makers, economists and academic researchers in order to identify the critical factors affecting the employability of the Ghanaian populace and also the nature and magnitude of such factors of challenge. This will also give directions for academic researchers in their future studies on career outcomes of the graduates.

In particular, the study will provides a basis for labour force projections, which occupy an important place in the statistical apparatus of planning for economic and social development.

1.4 Research Questions

1. What are the variations in socio-economic characteristics of the unemployed in Ghana between 2000 and 2010?
2. What is the relationship between socio-economic and demographic factors and unemployment in Ghana in 2000 and in 2010?

1.5 General Objective

The general objective of this study is to examine the overall characteristics of unemployment within Ghana's labour market, particularly to observe the socio-economic variations, levels and trends of unemployment rates in Ghana between 2000 and 2010.

1.6 Specific Objectives

1. To compare the variations in socio-economic characteristics of the unemployed in Ghana between 2000 and 2010.
2. To examine the relationship between socio-economic and demographic factors and unemployment in Ghana between 2000 and 2010.
3. To make suggestions to address the current state of unemployment in the country.

1.7 Organisation of the Study

The study is divided into seven chapters. Chapter One starts with the introduction to the study and comprises background information, statement of the problem, rationale and objectives of the research. The second chapter reviews relevant literature, including scholarly articles, journals, past projects from which the conceptual framework is derived as well as the hypotheses that guided the work.

Chapter Three is centred on the methodology as well as the limitations inherent in the data.

Chapter Four is made up of the univariate analysis; Chapter Five looked at the levels and differentials of unemployment as well as the bivariate analysis and mainly examines the relationship between the background variables and unemployment.

The multivariate analyses in Chapter Six entail binary logistic regression models. This is due to the dichotomous nature of the dependent variable. Summary, conclusion and recommendations are presented finally in Chapter Seven.

CHAPTER TWO

LITERATURE REVIEW, CONCEPTUAL FRAMEWORK AND HYPOTHESES

2.1 Introduction

This section reviews existing literature on unemployment in order to provide a foundation for the study. In order to elicit an understanding of the conceptual and theoretical issues of the phenomenon of study, the section critically reviewed the findings from other research literature to explore the socio-economic elements that have been identified to differ with respect to unemployment. This is to enable the study identify factors for inclusion in its empirical analysis.

2.2 The Nature of Unemployment in Ghana

The International Conference of Labour Statisticians (ICLS) of the ILO regards a person of working age to be unemployed if during a specified reference period (either a day or a week), that person had been: 'without work', not even for one hour in paid employment or self-employment of the type covered by the international definition of employment; 'currently available for work', whether for paid employment or self-employment; and 'seeking work', by taking active steps in a specified recent period to seek paid employment or self-employment. Therefore, a person who is available for work but fails to make an effort to seek work is described as a 'discouraged worker' rather than unemployed. Also, a person who is working but engages in job-seeking for the purpose of obtaining additional income or diversifying his/her job portfolio among other reasons as a moonlighter (Baah-Boateng et al., 2013) cannot be described as unemployed.

Ghana's economic performance has been quite impressive since 1984, prompting Leechor (1994) to describe the country's economy as a frontrunner in the economic reform process. Ghana

recorded about 5.2 percent annual average growth between 1984 and 2010 and became a lower middle income country after the rebasing of its national accounts in 2006, which pushed the country's annual average growth to 8.5 percent between 2006 and 2011 (Baah-Boateng et al., 2014). Ghana's real GDP growth reached about 15.2 percent when the country began its commercial oil production in 2011. In spite of this strong growth performance, employment generation remains a challenge. Ghana recorded a decline in employment elasticity of output from 0.64 in the 1990s to 0.4 during 2005–2008 (ILO, 2008). Till date, the country continues to battle with high incidence of unemployment and employment seeking particularly in recent times. The Central Intelligence Agency World Factbook ranked Ghana 86th on countries with the percent of the labour force that is without jobs in the world (CIA World Factbook, 2014).

Estimates from the 2010 Population and Housing Census indicate that 14 percent of the country's working age population was inactive outside the school system while 633,994 people, representing 5.8 percent of the labour force, were unemployed (GSS, 2012).

Unemployment constitutes one of the key labour market challenges in Ghana. It reflects the willingness and desire of jobless individuals to work and an indication of the health of an economy. The proportion defined as unemployed was 2.8 percent in 1984 and increased to 10.4 percent in 2000 and declined to 5.3 percent in 2010. The increase between 1984 and 2000 occurred in both urban and rural areas as well as among males and females. While the lowest rate for males was 2.7 percent in Northern Region, the lowest for females was 2.9 percent in the Upper East Region. Generally, the unemployment rates in 2000 were higher than those in 2010 in all regions. The high unemployment rates for 2000 compared to 2010 presumed to be due to the period within which the two censuses were conducted (GSS, 2012). In 2000, the census was held in March-April during the dry season while in 2010, it was in September-October, the peak

of the rainy season in the northern part of the country. These two seasons present different employment opportunities in the country. Since chunk of the country's active labour force are into agriculture which is heavily dependent on rain water for irrigation, it is mostly during the rainy season that farmers are seen in active employment. However, dry seasons in the country come with unemployment challenges especially to peasant farmers with no alternative irrigation systems and lacks job diversification. Hence, accounting for the high disparities of unemployment in both censal periods.

In 2010, about 59 percent of the unemployed persons were seeking work the first time and 41.0 percent had worked before. More than 60.0 percent of unemployed males and 55.0 percent of the unemployed females were first time job seekers. This pattern is reflected in all regions, for males and females, though with varying proportions: ranging from 56.1 percent in the Greater Accra Region to 47.4 percent and 47.4 percent in the Upper West and Northern regions respectively (GSS, 2012)

Generally, the proportion unemployed decreased with increasing age. In 2010, 42.7 percent of the unemployed populations were aged 15-24 years, 46.2 percent aged 25-44 years, 9.9 percent aged 45-64 years and 1.3 percent aged 65 years and older. In all the four censal years examined, the proportion of unemployed persons was highest among those aged 15-24 years except for 2000. In 1984, this proportion was nearly three-quarters, and with the same levels for both males and females. These results are expected as the 15-24 year-olds are those who have completed one level of education or the other and are entering the job market for the first time

Unemployment rates were highest among persons with secondary school education in both 2000 and 2010 at 9.6 percent and 19.7 percent respectively. The next group which recorded relatively

high unemployment rates was persons with tertiary education: 2.7 percent in 2000 and 9.1 percent in 2010. Generally, female unemployment rates were higher than male unemployment rates at every level of education. Unemployment rates were lowest among those with no formal education (17.0%) in 2012 with similar pattern for males and females. Given the unemployment rates by age and education, one can infer that unemployment is associated with the transition period for young people from the world of education to that of work.

The nature of unemployment in the country shows limited job openings available to the labour force and this suggests serious policy failure with socio-political and economic implications (Ning & Shunde, 2013)

2.3 Socio-economic Determinants of Unemployment

Unemployment is one of the major problems in almost all countries especially less developed countries. It has been a very consistent problem and remains difficult to manage in many countries. There are various studies that have analysed the determinants of the phenomenon from different dimensions but this theme takes account of relevant literature on the subject area. Their findings also reveal ranges of different theoretical models that are used for the investigation of the phenomenon.

Education prepares people for the world of work. It is generally believed that people who are better educated are more likely to be employees than those who have low levels of education, with the latter more likely to be self-employed (GSS, 2010), especially in sub-Saharan Africa. In these developing countries, the emerging concern about unemployment is the increasing rate among the educated than uneducated. A study by AfDB et al. (2012) indicated that unemployment is expected to be high among educated than the uneducated particularly in middle

income countries than low income countries. However, they contend that the educated unemployed are more likely to eventually escape unemployment than those with lower levels of qualification. For example, Dickens and Lang (1995) noted that unemployment is highest among the highly educated Sri Lankan youth (aged 15–24) and declining rapidly thereafter. Sackey and Osei (2006) also observed that basic and senior secondary levels of education are associated with relatively more unemployment in Ghana due to the relatively lower levels of such education compared to those with tertiary education.

Literature has shown unemployment tends to be higher among the young than the old (AfDB et al., 2012; UNECA, 2005). A study by Echebiri (2005) in Umuahia, Nigeria using a binary logit model showed that age of respondent was very significant and inversely related with the probability of being unemployed. Sackey and Osei (2006) supposed the situation could be as a result of the fact that younger people have lower labour market skills relative to older cohorts. For instance Baah-Boateng, (2014) affirmed, unemployment rates declined with age, with the highest rate among the youth. Figures from his study showed that youth unemployment from 5.0 percent in 1998/99 to 6.6 percent in 2005/06 compared with less than 4 percent for older age groups in Ghana. Other reasons have been as well cited in literature to have accounted for the labour market bias against young people including the fact that younger workers tend to be easier and less expensive to dismiss than older ones (Anyanwu, 2013); and are more likely to face the brunt of layoffs due to the perceived lower cost to establishments of releasing them relative to their older counterparts. O'Higgins, (2001) cited that youth unemployment is more likely to increase if the aggregate labour market is not sufficient to absorb the increasing number of youth population.

Gender has also been found to have an association with a person's economic activity status. Women and men are affected differently, due to the existing gender norms which continue to affect the unemployment patterns of women and men which vary across all countries (ILO, 2011). A study by ILO (2011), observed no substantial change in the overall patterns of gender gaps in the unemployment rates over the years, but concluded that global female unemployment rate has remained higher than men's with regional variations. Gender differences of unemployment have been established in Sri Lanka by Dissanayake (2011), who found higher unemployment rates among women than men. In her study, while 56.3 percent of male were found as unemployed, the rate for females was 74.2 percent. However, in Ghana, the situation according to Baah-Boateng (2012) is the reverse, as he found in his study on Gender Dimensional Labour Market Discrimination in Ghana that, unemployment is a bigger labour market challenge for men than women from 1960, until 2000. He ascribed the higher unemployment rate among women than men since 2000, to the increasing labour participation of women on account of the improved education of women. Studies have found the differentials of unemployment as one of the significant determinants of unemployment in South Africa's North-West province (Naudé and Serumaga-Zake, 2001).

A person's locality of residence has further been observed to be a plausible determinant of unemployment. For instance, Dickens and Lang, (1995) observed that the situation of unemployment is an urban phenomenon. In Ethiopia, some studies such as Guarcello & Rosati (2007), Berhanu et al. (2005), Getnet 2003, Serneels (2007) and Krishnan et al. (1998) have looked at different aspects of the labour market in general and the urban labour market in particular. Findings from these studies too indicate that levels of unemployment are very high in urban areas. Agreeing to this, AfDB et al. (2012) estimated the urban unemployment rate to be

extremely higher than the rate in rural areas in some countries in Africa. Serneels (2007) in his descriptive analysis on the effects of individual characteristics on urban youth unemployment in Ethiopia reported that 1994 urban Ethiopia had one of the highest unemployment rates in the world. This supposes that, largely, residing in an urban area relative to rural localities increases the probability of being unemployed (Sackey and Osei, 2006) therefore supporting Kingdom and Knight's (2004) observation of an increase in the probability of an urban dweller becoming unemployed by 8.6 percentage points in South Africa.

Another determinant of unemployment which is no less important than the aforementioned is the influence of economic variables. At the macro level, Okun argued by linking unemployment to changes in the difference between GDP. This provides some empirical understanding of the demand side explanation to unemployment as he observed a direct correlation between a percentage GDP and unemployment rate in excess of natural rate of unemployment (Okun, 1962). However, the slow response of employment to GDP growth in some countries has rendered Okun's argument somewhat out-dated since growth, driven by high capital and technologically minded sectors of mining and oil might not cause employment growth in line with GDP growth. Anyanwu (2013) used available cross-sectional data over a period of 1991–2009 in Africa to show an increasing effect of a nation's domestic investment rate on youth employment and by implication a decreasing effect on youth unemployment in sub-Saharan Africa (SSA) with the reverse reported in North Africa. He further found a statistically significant positive effect of real GDP growth on youth employment in SSA and North Africa suggesting a decreasing effect of economic growth on youth unemployment in Africa. Using the data from the Current Population Survey (CPS), Valletta and Kuang (2011) came out with results that strongly suggested that, a weak labour demand plays a key role in prolonged unemployment

duration. While mismatches may cause available jobs to go unfilled and thereby hold down employment growth, Valletta and Kuang (2011) could not directly disprove explanations related to the supply of labour, such as mismatches between worker skills and employer skill needs.

Elsewhere in Iran, Valadkhani (2003) investigated the causes of unemployment and revealed that there exists a trade-off between inflation and unemployment. According to him, persistent and soaring inflation can lead to currency depreciation which worsens unemployment (Tunah, 2010). If actual output is less than the potential output, unemployment will increase. Increase in investment reduces unemployment, while increase in economic uncertainty cause unemployment to increase. In an attempt to understand South Africa's economic challenges, Rodrick (2006) explained that, the high unemployment resulted from the shrinkage of the non-mineral tradable sector especially manufacturing which was the key for growth and employment in South Africa in early 1990s. Therefore distorted export-oriented strategy that increase the relative profitability of producing tradables for world markets which stimulated economic growth by pulling labour into productive activities where their marginal products is higher at the expense of non-mineral tradable sectors is likely to expose the economy to unemployment occurrence.

Another study on the determinants of unemployment in South Africa conducted by Schoeman et al. (2008) revealed that increase in capital causes reduction in unemployment and this is based on the theory that increased investment creates jobs. Also, increased unionization and crude oil price, appreciation of the real exchange and strict monetary policy has been acknowledged to cause a rise in unemployment rate (Berentsen et al., 2009). Izraeli and Murphy (2003) studied influence of degree of industrial diversification on unemployment rates and per capita income in seventeen states. The result showed that a state with more diversified base has lower

unemployment rate. Evidence on the relationship between per capita income and industrial diversification remained inconclusive.

2.4 Theoretical Explanations of Unemployment Differentials

Much of the early literature on unemployment was about wage formation and labour and neoclassical views of the labour market. These studies undertaken in the late 1970s and early 1980s were torn between Disequilibrium Theory and Equilibrium Theory.

Disequilibrium theory states that regional unemployment differences are temporary; it assumes that given enough time, unemployment rate will adjust to equalisation across space. The theory proposes that, unemployment can then be reduced through inter-regional migration. Thus the movement between two or more regions will surely have an effect on a region's unemployment rates, bringing them closer together (Smith 1975, 1978; Sheppard 1978; Anderson 1979; Boots and Kanaroglou 1988; Gabriel, Shack-Marquez and Washer 1993; Aroca and Hewings 2002). The problem however is that the theory states that the forces possible of culminating into the regional equilibrium are weak and therefore the process may be slow, so substantial unemployment differences between regions may persist for longer periods of time. A reason for it persisting may be due to a shock that raises unemployment locally, for example if a region experiences a factory closure. However, there are several factors that affect the speed of adjustment, one of the main reasons is the flexibility of households and firms, Household and institutional inflexibility slow down regional convergences. Where they are more flexible, the adjustment process will be faster. An example of this flexibility in relation to inter-regional migration decisions could be where an individual chooses to move to an area where the likelihood of successful employment is higher, or a firm base its decision to set up business in an

area that offers a larger pool of labour (Batten and Boyce, 1986). They do not however react as quickly as households as the decision to move is costly and less easy to reverse causing reluctance. Migration, capital flows and the flexibility of wages are the forces that are seen to be weak that affect the speed of adjustment. Nevertheless, these forces are also dependent on other factors that could influence the speed of adjustment on both the labour demand and labour supply sides. These factors include aspects such as age, education, unemployment benefits, crime, demand and supply shocks etc. (Azariadis, 1975; Burdett & Hool, 1983). Looking at age, it is usually agreed upon that younger people are more likely to migrate compared to older people; therefore a region with very few young people is likely to experience unemployment fall quickly (Gabriel et al. 1993). Alternatively if we look at young adults that live with their parents at home, for them the risk and cost is much higher of moving out with the stress of finding a new home and managing costs etc.

Educationally, this can have a huge effect on individuals' migration decisions and employment opportunities. Better educated workers are more likely to move in response to economic opportunities thus raising their chances of finding employment. The labour market for skilled workers is also much bigger allowing for an easier job search that may bring greater result in attaining a job. McCormick and Sheppard (1992) build their model of persistent inter-regional differences in unemployment rates on the premise 'that the willingness to migrate is an increasing function of the productivity of a worker'; regions with a large proportion of less skilled workers may then have consistently high rates of unemployment. A higher level of education also gives an individual better job information, giving him/her higher possibilities of finding jobs elsewhere. Higher educated workers are also said to have less psychological

unwillingness to relocate, especially if it meant to pursue further studies or for career advancement (Gabriel et al. 1993).

Other factors that can affect a region's speed of adjustment can include whether living in a rural or urban setting. Living in a more rural area may mean that adjustment may be much slower to that of an urban area. If a factory was to shut down in an urban area, workers can apply the same skills to a nearby factory allowing for an easy transition from one job to another without moving. Labour mobility would be higher if the cost of moving was cheaper, but in most cases the costs are very high. These costs can be from basic transport costs from one area to another to most importantly housing market prices relative to the time of migration etc. Unemployment rates will also converge at a slower rate if unemployment benefits are generous, thus meaning that the pressure to find a new job is reduced by a great amount as there is less stress to go out and seek employment.

By and large, the disequilibrium theory offers an explanation for regional unemployment differences and how forces affect the adjustment process in relation to equalisation.

Conversely, equilibrium theory or equilibrium unemployment reflects a worker's preference for certain areas in terms of job search (Shapiro and Stiglitz, 1984). This theory expects out-migration from regions that experience high levels of unemployment, thus accepting the concept of free mobility. With this, regional unemployment disparities may exist when each region is seen to be at its natural state of unemployment where the national rate of unemployment is determined by each region's attractiveness to workers, or in other words the region's favourable services or comforts. According to the theory in such a circumstance, it is expected that some

redundant worker resort to-out migration in order to seek employment, while some individuals decide to stay in areas of high unemployment.

However, this inclination to stay must be compensated in some way to induce them to stay voluntarily. This is influenced by three main compensating factors such as; attractiveness of amenities, high wages and high unemployment benefits. The unemployed will not work for lower than expected wages, this is because the benefits of seeking for a job outweigh the low wages that are on offer. This then results in the wage rate failing to clear the market at completely full employment. Another determining factor in the search for employment is an individual or household preference for certain living areas. Within equilibrium regional disparities two models have emerged, the amenity and matching models. The amenity model considers regional variation in job opportunities to be essentially compensating in nature. The matching model introduces costs into the framework.

2.4.1 The Amenity Model

This model works on the assumption that households are free to move between regions. Households will migrate to certain areas based on the attractiveness of living conditions or amenities, e.g. climate, public services, transport, education. Firms also expand business in areas that present encouraging conditions for example a solid infrastructure and a healthy available amount of natural resources. Migration occurs up until the point where utility or profits have been eliminated from that particular area. Firstly it considers a household that is mobile between regions. The utility function of this household can be written as $U=f(w,ur,a)$, where utility is a function of regional wage rate (w), regional unemployment rate (ur) and regional household amenities (a). Regional wages and unemployment are linked by a wage curve that can be

expressed as $w = f(u)$. With this function, a zero migration locus and the wage curve equally determine the equilibrium regional unemployment and wage rates as a function of the amenity level, equilibrium is when both the locus and wage curve intersect. Higher unemployment rates would have to be compensated for by a higher wage rate or better amenities, thus stopping households from moving. An increase in amenities (a) would cause a downward shift of the locus no longer part of equilibrium, households then experience in migration until a new equilibrium is reached with higher unemployment and lower wages. Wages are flexible and workers can move between labour markets in response to better amenities on offer, which can result in permanent differences in the wage and unemployment rates (Bentolila et al., 2011). The model expect wages to be lower and unemployment to be higher in areas where amenities are positive, divergence would only occur if the labour market does not clear in response to negative shocks. If the labour market did respond quickly, this would reduce labour demand reducing wages, resulting in out migration to places that offer higher wages. A reason for unemployment disparities could be due to negative demand shocks affecting particular regions. Regional unemployment differentials may persist due to differences in amenities, for example higher unemployment in regions with better climate and infrastructure etc., but amenities change slowly over time therefore unemployment differences are also going to move slower over time.

2.4.2 The Matching Model

Whereas the amenity model assumes that the migration of households and firms are a response to differences in utility or profits for firms, the matching model introduces the concept of moving costs. The theory considers that, at each period when part of the workforce are made redundant, thus having to both leave the region and face the costs of moving or search for a job. As unemployment rates increase, the labour market becomes more and more congested, therefore

increasing the cost of searching for a job leaving it more profitable to migrate. On the other hand, those who choose to stay enter the unemployment pool, where the probability of finding employment is a declining function of the regional unemployment rate. For equilibrium the flow of redundant workers is equal to the flow of workers leaving the unemployment stock. Regional unemployment and migration is dependent on the rate of job destruction within a region, the higher the job destruction the higher the unemployment rate therefore higher out migration is experienced.

Regional job destruction is affected by a regions industry mix, where declining industries compete with fast growing industries. Backward regions with a poor industry mix will be seen as having high unemployment and a high rate of net out migration. This high level of regional unemployment is due to the congestion of the labour market in these declining regions that have poor industry structures. Fast growing industries can allow for the creation of new jobs, where a firm has open places for those who seek employment. Job creation is dependent on the information that is available to the potential workers, again highlighting that those better educated may be the ones who have access to this information (Glewwe, 1987; Tan & Chandrasiri 2004). Job creation can come through government spending stimulating investing in projects or new services, through legislation and monetary policy or through the creation of new industries.

These two models have very differing policy implications. For the amenity model, government regional policies may not be very effective in reducing unemployment due to population movements and capital flows restoring equilibrium disparities. On the other hand, with the matching model, government policy may be able to reduce unemployment by stimulating and

promoting fast growing industries in declining regions. On the whole, the equilibrium offers an explanation that looks at unemployment on a more individualistic level based on preferences.

2.4.3 Empirical Evidence

Green (1998) looked at regional unemployment disparities in the U.K to gain a better understanding as to why unemployment rates vary between different geographical areas. His study examined unemployment rates for a sample of 10,000 areas in the U.K and used data from the census of the population. One of the main focuses was on what factors are most correlated with disparities. Green's findings were that between 50-60 percent of variation in unemployment rates between small areas in Great Britain can be accounted for by the following factors; high unemployment in areas that had a high proportion of people with low income within that area or lived in rented accommodation, also poorly qualified individuals that live in large cities. Green found a distinct geographical concentration of those most at risk of becoming unemployed, and suggested the need for spatially discriminating policies in order to lower unemployment.

Taylor and Bradley (1997), set out to investigate regional unemployment in Germany, Italy and in the U.K. They found that two factors had a huge influence on regional unemployment differences. The first was that unemployment is higher in regions that show high labour costs (Bean 1994; Cameron & Muellbauer 1999). One of the main causes of persisting unemployment in the EU since early 1980's has been that real wages have been too high and fail to respond to slack labour demand, compared to the much greater responsiveness in the United States. From 1970 to 1993 employment in the U.S.A increased by 50 percent while real wages increased by 10 percent but as for the E.U., employment rose by 15 percent while real wages by 50 percent. This indication vividly depicts that, unemployment differentials in different regions can be attributed

to the cost of labour in that region. Martin (1997) agreed that the real wage was a key variable and that wage is unresponsive to unemployment in regions that experience high unemployment rates. The second finding was that a regions' export base is likely to have a dominant effect on economic performance. A regions' demand for labour is dependent on its industry mix (a region's relative concentration of businesses within particular sectors, and the changes expected to occur across various industry sectors as a result of different investment strategies). If we take a region that is dependent on declining industries for example in agriculture, there is a likelihood that the sector will suffer more than the rapidly growing service sectors. For example, a substantial systematic improvements in infrastructure investment, including capital improvements to transit facilities, freight operations improvements, arterial improvements, and expansion and modernization of water and waste water systems will provide the modernized infrastructure necessary to facilitate expansion of existing businesses, creation of new ones, and the relocation of other businesses to join the established, thriving sectors already here. These impacts should increase the number of jobs for a workforce that already has extensive experience in these industries to the detriments of other sectors like the agriculture sector. Hence, increasing the demand of labour in these improved sectors at the expense of others. In effect, the influx of labour in affected regions will eventually create labour surplus; therefore resulting in unemployment in the area.

Marston (1985), wanted to empirically test both the equilibrium and disequilibrium models to find if the equilibrating forces are weak and how long regions spent away from equilibrium. Marston wanted to see for how long disequilibrium persisted. The model used in his test sought to offer both explanations and to test the length of disequilibrium. In order to test, Marston assumed that the regional labour market begins in equilibrium, a negative demand shock takes

place pushing unemployment up, but this should disappear over time. Due to the demand shock, this moved labour demand from region B to region A, as there is a demand for fewer workers in that area. This then declines the utility of workers in area B, so they gain from migrating to A, helping to restore equilibrium. The short run barriers to migration allow disequilibrium to exist for a while. Equilibrating forces were seen to be out migration of workers from area B into area A, wage decreases in area B and in migration of firms into area B. Results using U.S. data found evidence for equilibrium theory. It found a positive relationship between regional unemployment and wages, meaning higher unemployment tend to be in higher wage areas. It also found that higher unemployment benefits were associated with higher regional unemployment rates. As a result the study noted that, regional unemployment must be compensated by higher wages or amenities.

Carlsen (2000) empirically tested the two models within equilibrium unemployment, the amenity and matching models. The data used was from Norway between the years of 1983 and 1992. It said that permanent unemployment rates were a function of amenities and job destruction, $UR=f(\text{amenities, job destruction})$, testing which one explained regional unemployment better. The results found little evidence to support the amenity model that states high unemployment must be compensated by amenities. Carlsen found the opposite, that depressed regions do not appear to have more favourable conditions. However, it showed support for the matching model, finding that employment growth is negatively correlated with regional unemployment. A decrease in employment growth results in higher job destruction and therefore higher regional unemployment.

2.5 Policy Recommendations

As demonstrated in the previous theme, it is that a number of factors are responsible for determining the problem of unemployment. Confronting unemployment requires diagnosis of the determinants in order to understand the diverse perspectives of the problem and then eradicating or decreasing these causes.

Many small firms find that graduates are too academic, lack basic business skills or may not stay long in their organisations therefore; they are unwilling to employ them (Holden et al., 2002). It has also been said that as long as Universities will exist the debate about graduate unemployment will still be gaining momentum (Nilsson, 2010). Tertiary institutions are becoming like a “tick in the box” (Nilsson, 2010, adapted from Tomlinson, 2008). Work is in fact a place where graduates need to put into practice what they have learned. However, this might not be an easy process. It has therefore been necessitated in most part of the world for graduates to undergo varied types of on-the-job training programmes before seeking employment. For instance, it has been argued in Sweden that, for university students to contribute to creativity and have gainful employment, it expected of them to undergo direct vocational training (Nilsson, 2010). On the other hand, Hesketh, (2000) argued that personal characteristics, general competences, interpersonal skills, informal social network and so on are more vital compared to vocational and technical aspects (Nilsson, 2010, adapted from Hesketh, 2000).

Even though graduate unemployment is on the rise, the increase in the number of universities and the emergence of mass education (Nilsson, 2010, adapted from Brenan et al. 1996) with ill-assorted study programmes are deepening the declining job opportunities to absorb the graduates

these universities produce yearly. It is forecasted that unemployment will increase among graduates because of a mismatch between their skills and the demands of the workplace” (as cited by Johnston & Packer, 1987, in Brown, 2003). To prevent this, second cycle and tertiary institutions should attempt to meet their students’ career development needs. According to Niles and Harris-Bowlsbey (2002), this entails a two part process, helping students with career development in school and for life after school. As Zunker (2006) puts it, “career development is never over” throughout our life we deal with various aspects of work and its implications.

Zunker, (2006) proposed a set of twelve competencies and indicators that educational institutions can adhere to, for which adults should acquire for work and lifestyle preparation. Niles and Harris-Bowlsbey, (2002, 335) in their attempt to explain that these competencies, known as the National Career Development Guidelines separated them into the following three categories, self-knowledge, educational and occupational exploration, and career planning (Mauro and Carmeci, 2003). Under the first category of self-knowledge, he urged college students to learn skills that help them to maintain positive self-concepts, effective behaviours, and understanding developmental changes and transitions. Adults need “an accurate understanding of their strengths, interests, abilities, and values and understand how these important self-characteristics influence their career decisions. They need to be able to care for themselves and understand that physical changes and external events may affect their work. Niles and Harris-Bowlsbey state that the second category of exploration includes entering and participating in education, training, work and life-long learning; knowing what to do with career information and how to acquire jobs; and how society influences work. The indicators of this category according to Zunker (2006) include confidence in one’s abilities and understanding how to use community resources such as child care to support one’s educational achievement. To implement these skills, Niles

and Harris-Bowlsbey (2002) write that colleges' make use of stocked career libraries, job shadowing, and career planning courses. The final category of career planning includes skills necessary in making decisions, understanding how work affects lives, how males' and females' roles change, and the transitions found in careers.

To make career related decisions, individuals need an understanding of "intraindividual characteristics (e.g. skills, values, interests, personality traits) and extraindividual factors (e.g., demands from non-work life roles, accessibility of training opportunities, financial resources, and family support)" Hesketh (2000). This can be accomplished through career planning courses, workshops, and counselling. The national competencies serve as a guide to teaching students the skills they will need to navigate their careers. Service delivery is also based on various program models. One model discussed by Niles and Harris- Bowlsbey (2002) is Powell and Kirks' (1980) awareness programming approach. Brown (2002, 363) writes, specialists need to "help students choose careers that appear to have little relevance to their majors" Powell and Kirks' assessment model allows for students to experience a range of skills necessary for career development. Niles and Harris-Bowlsbey (2002) write that another model used to help students develop their career skill set is the Florida State model in place at Florida State University. This model is a curricular career information service model, abbreviated CCIS. According to Zunker (2006, 443), this program focuses on "an instructional approach to career planning services". The CCIS is a sixteen module process. Students start with engaging in a short interview then watching a slide presentation that explains the CCIS. The second module, "What's involved in making a career decision?" (444), focuses on career planning. Module three, "Looking at You" (444) makes use of self-assessments. In the fourth module, "Information: Where to Find It and How to Use It" again uses a power point presentation. The fifth module "Matching Majors and Jobs" (444) looks

at what one can do with a particular major. Since the CCIS is self-help oriented, Niles and Harris- Bowsbey (2002) assert that it “allows students to direct their learning about career planning and manage their own career development”.

Niles and Harris-Bowsbey (2002, 344) state “career planning is a developmental process to aid students in developing, evaluating, and effectively initiating and implementing career plans”. To be effective, colleges and counsellors need to be proactive from the time when students first enter the campus. Developing one’s career knowledge and skills takes time.

Kupets (2005) studied determinants of unemployment in Ukraine between 1997 & 2003. He used Ukrainian Longitudinal Monitoring Survey 2003, to investigate an individual conditional probability about leaving unemployed to employed. Based on his multivariate analysis, suggested that long term unemployment reduction policies should focus more on less educated & older workers and residents of rural areas.

Gebeyaw (2011) also in a study on socio-demographic determinants of urban unemployment; a case of Addis Ababa, recommended that more integrated efforts needs to be exerted in promoting women related institutions and affirmative actions to enhance active participation and empowerment of women in the labour markets.

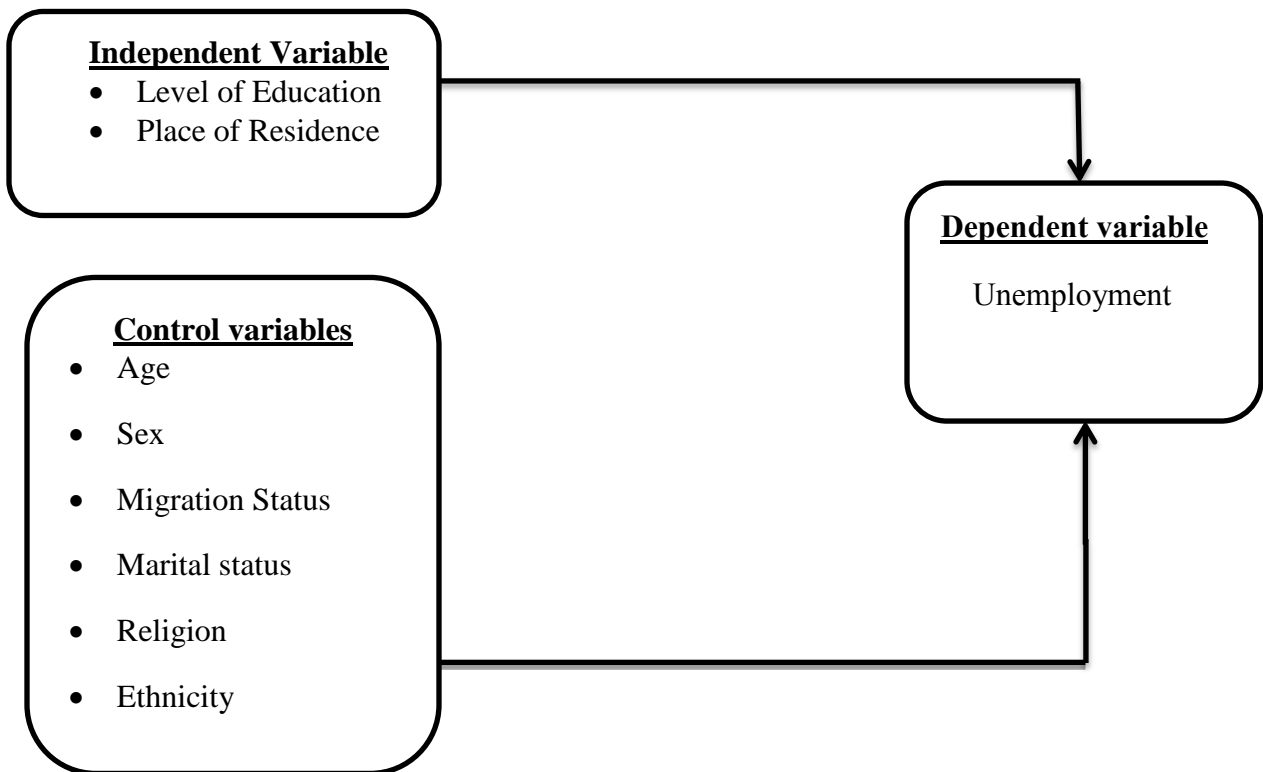
Bakare (2011) in his study on the determinants of urban unemployment crisis in Nigeria; found in his econometric analysis that rural-urban migration results to urban unemployment. In this respect, he recommended that programmes of integrated rural development and re-orientation of economic activity and social investments towards the rural areas need to be embarked upon to create an appropriate rural urban economic balance. He further recommended private domestic investment as a necessary condition for reducing the rate of unemployment. Policy measures

which enhance private domestic investment including full capacity utilization, capital formation, export promotion and general business development (e.g., small business development) will reduce youth unemployment

2.6 Conceptual Framework

This study draws on the research used to explain the socio-economic differentials of unemployment in Ghana. Figure 1.0 gives the pictorial structure for the present study based on a modification of The Matching Model presented in “Equilibrium Unemployment Theory” by Pissarides, Christopher A. (2000), 2nd ed., Cambridge (MA): MIT Press that guided the present study; thus showing the relationships among the various variables of interest.

Figure 1.0: Conceptual Framework of the Relationship between Socio-Economic and Demographic Variables and Unemployment



Source: Pissarides, C. A. (2000).

Different theoretical models may be relevant for an analysis of unemployment differentials. This framework is driven by the unemployment model proposed by the theory on a job search as presented in Pissarides, Christopher A. (2000). This model emphasizes that, the migration of households and firms are a response to differences in utility or profits from firms, and the cost of moving. When part of a workforce are made redundant in a firm, the unemployed are expected to leave the region and face the costs of moving or search for a job. As unemployment rates increase, the labour market becomes more and more congested, therefore increasing the cost of searching for a job, leaving it more profitable to migrate. Those who choose to stay enter the unemployment pool, where the probability of finding employment is a declining function of the regional unemployment rate. Regional unemployment and migration is dependent on the rate of job destruction within a region, the higher the job destruction the higher the unemployment rate therefore higher out migration is experienced.

The model posits that regional job destruction is affected by a regions industry mix, where declining industries compete with fast growing industries. Therefore backward regions with a poor industry mix will be seen as having high unemployment and a high rate of net out migration. This high level of regional unemployment is due to the congestion of the labour market in these declining regions that have poor industry structures. Whereas, fast growing industries can allow for the creation of new jobs, where a firm has open places for those who seek employment.

In this study, it is assumed that, in search of economic opportunities a person's level of education is a strong determinant of his/her activity status. Highly educated workers are more likely to gain employment in response to their prevailing economic challenges. This is because, the payoff is likely to be larger for skilled than unskilled or less-skilled workers. McCormick and Sheppard

(1992) build their model of persistent inter-regional differences in unemployment rates on the premise that the willingness to migrate is an increasing function of the productivity of a worker. It is therefore expected that areas with a large proportion of less skilled workers may then have consistently high rates of unemployment. However, since job creation or employment is dependent on the information that is available to the potential workers, again highlighting that those educated and better trained may be the ones who have access to this information, hence finds jobs faster than those with less education (Tan & Chandrasiri, 2004).

The study as well assumes that, the characteristics of a person's of residence could determine his/her activity status. Places with poor infrastructural development and climatic conditions are likely to report higher levels of unemployment incidence. This could be some places in an urban (Dickens and Lang, 1995; Boateng, 1994) or a rural setting. Generally, in Ghana, it is affirmed that residing in an urban area relative to rural localities increases the probability of being unemployed (Sackey and Osei, 2006). Similarly, Kingdom and Knight (2004) have observed an increase in the probability of an urban dweller becoming unemployed by 8.6 percentage points in South Africa.

Also, some of the empirical literature has shown that unemployment tends to be higher for the young than the old (Johnson & Layard, 1993, AfDB et al., 2012; Sackey & Osei, 2006; UNECA, 2005) argued that younger people are more likely to be unemployed due to the fact that they have lower labour market skills relative to older cohorts. The study relates to research by AfDB et al., (2012), UNECA, (2005) that found that young age cohort was related to unemployment. However, Echebiri's (2005) findings from a binary logit model showed that age of respondent was very significant and inversely related with the probability of being unemployed. It is expected that older respondents would report lower unemployment than younger respondents

because younger respondents are more likely to have lower labour market skills relative to older cohorts. This confirms Glewwe, (1987) proposal that unemployment is relatively rare for those over 30 years of age. These studies imply that age is an influential factor in determining unemployment.

Gender differences of unemployment have also been established in Sri Lanka by Dickens and Lang (1995) who found higher unemployment rates among women than men. In Ghana, however, Baah-Boateng (2012) found unemployment to be a bigger labour market challenge for men than women from 1960, until 2000 when the reverse occurred. Therefore the study assumes that a person's sex is likely to play a significant role in his unemployment status.

Respondent's marital status may as well play a significant role in his/her unemployment situation. In that, it is expected that respondents who are never married would report low unemployment than respondents who are currently married because respondents who are currently married would have to perform their marital roles and responsibilities in addition to other roles and responsibilities which could result in stress.

Based on the reference model, this study presumes that such differentials might as well be influenced socio-economic variables, level of education and place of residence with age, sex, migration status, marital status, religion and ethnicity as control variables. As a result, the modified conceptual framework informing the nature and scope of analysis of the data used in the study.

Consequently, the dependent variable which is unemployment is expected to be influenced by the independent and control variables and ultimately show the socio-economic variations, levels and trends of unemployment rates between 2000 and 2010 in the country.

2.7 Hypotheses

From the review of relevant literature and the conceptual framework, the following hypotheses guided the study

- People with no education are more likely to be unemployed than people with some education.
- People who live in urban areas are more likely to be unemployed than people who live in rural areas.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter deals with a detailed description of the methods used for this research and explained the theory behind the various distributions and models for the analysis. The chapter addresses the possible background characteristics of the respondents with unemployment status, in 2000 and 2010 with bi-variate analysis and their likely regression models. It also provided the description of the software packages to be used for the analysis and models. In summary, the chapter touches on sources of data, methods of analysis, measurement of variables, the data collection process and the limitations inherent in the data.

3.2 Source of Data

The study uses data from the 2000 and 2010 Ghana's Population and Housing Census (PHC) conducted by the Ghana Statistical Service (GSS). However, even though, the study intended to use complete censuses from both years, it was against the institutional policy of the GSS. Therefore, the core sample of the study is made up of a 10 percent representative sample of both censuses. The data collected by Ghana Statistical Service included in the employment section of the census instrument a subsection that dealt with activity status and employment search within the last 7 days prior to the census night of the respondent. In addition, other employment status variables includes whether the respondent had made any effort in the past week to find work; what they did to find work; how long they had been unemployed; and their job expectations. There is also information on other background characteristics of the respondents including their

age, level of education, marital status, place of residence, religious affiliation household income, gender and ethnicity among others.

3.3 Methods of Analysis

The study uses Statistical Package for the Social Science (SPSS) mostly in its analysis. It classifies all respondents aged 15-64 years who indicated that they had no fixed jobs; currently available for work; having searched for jobs by taking specific steps to look for work as unemployed. The census asked individuals to indicate whether during the 7 days before census night, did engage in any activity for pay (cash or kind) or profit or family gain for at least one hour. The census also asked individuals to indicate how he/she was mainly engaged. The study uses the latter response to the questions as a consistency check measure. For an individual indicating 'no' to the former question, the study expected an indication of either 'worked before, seeking work and available for work' or 'seeking work for the first time and available for work' in order to be classified as unemployed. In other words, for individuals to be included in the unemployed category, it should be the case that there are no missing observations for the two variables in the dataset (that is, a 'no' response to the question of did engage in any activity for pay (cash or kind) or profit or family gain for at least one hour; and either 'worked before, seeking work and available for work' or 'seeking work for the first time and available for work' to the question 'how he/she was mainly engaged' as an indication of a respondents unemployment status). Though this may not have been a foolproof approach it allows the study, to a greater measure, to ensure consistency in response and deal with a cleaner set of data as far as the unemployed are concerned.

Unemployed is used to describe persons classified as those who are 15 years and above, who are not working but who are available for work and actively looking for work. This situation in one way or another has effects on the individual and the society at large. A person's background regarding his/her race, level of education, age, gender, home ownership, location among others can determine their employment status (Kingdon & Knight, 2001). An individual's employment status is thus, linked to his/her socio-economic background.

The study relies on simple bi-variate analysis of the background characteristics of the respondents with unemployment status, in each case comparing 2000 to 2010. In the bi-variate analysis, the chi-square technique was employed to examine the association between socio-economic and socio-demographic characteristics of respondents and unemployment rates. Further analysis is done using binary logistic regression models to measure the relationship between unemployment and background characteristics of respondents notably level of education, place of residence, age, sex, migration status, marital status, religion and ethnicity for 2000 and 2010. Using binary logistic regression model, the study sets employed category as the reference point and estimated the probability of respondents of a particular characteristic to be either unemployed or inactive as compared to being employed. This was necessary for determining the ability of the model to predict the dependent variable accurately. A total of eight explanatory variables were added with two independent variables (level of education and place of residence) and controlling for age, sex, migration status, marital status, religion and ethnicity to the model.

First, two separate models are run to observe the statistical association between level of education and unemployment and place of residence and unemployment in 2000 and 2010. Another model is further run to observe the statistical association between the two independent

variables (level of education and place of residence) together with the six control variables (age, sex, migration status, marital status, religion and ethnicity) and unemployment. Also, a test of whether the added variables resulted into the model improvements is conducted using a Chi Square test. The test results show the presence of significant statistical relationship between dependent variable and a set of independent variables with Chi square at 5 percent level of significance.

3.4 Measurement of Variables

3.4.1 Independent Variables

Education: Education is any act or experience that has a formative effect on the mind, character or physical ability of an individual. The education variable is divided into four categories. Indicator: Primary education consists of people with the first nine years of schooling including those with Junior High School education. Secondary represents those who completed secondary school. Tertiary education is made up of undergraduates and postgraduates. And No Education is characterized by people with non-access to formal education. The education section of the census asked respondents whether they had ever been to school before and their highest level of completion, among others. Based on response to the latter question, education dummy variables were constructed for the various levels of educational attainment.

Locality (Place of Residence): Locality will be defined as a distinct population cluster (also designated as inhabited place, populated centre and settlement) which has a NAME or LOCALLY RECOGNISED STATUS. It includes fishing hamlets, mining camps, ranches, farms, market towns, villages, towns, cities and many other types of population clusters, which

meet the above criteria. The study will classify localities with 5,000 or more persons as urban while localities with less than 5,000 persons as rural.

3.4.2 Control Variables

Age: The age of every person was recorded in completed years disregarding fractions of days and months. For those persons who did not know their birthdays, the study estimated their ages using a list of district, regional and national historical events. The study categorized the variable into five-year age groups, namely, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59 and 60-64.

Sex: Sex refers to the biological and physiological characteristics that define men and women.

The study measured the variable in two categories, which are;

- a) Males
- b) Females.

Migration Status: Migration is a geographical movement involving a change from a usual place of residence over a defined territory beyond a defined period (United Nations, 2012). The study considered a person who had stayed in a place other than the place of birth for less than five (5) years. This is because, it is assumed that such a person is likely to be permanent resident in his or her current place of residence after five (5) years of visit. The study also measured the variable in two categories.

- a) Migrants
- b) Non Migrants

Marital Status: Marital status is an indication of a person's nuptiality standing. In the study, information on a person's current marital status was collected for all respondents aged 15 years and above, by asking the question "What is your marital status?" Three response categories were used and all persons who were eligible to answer the question fell into one exclusive category.

These categories were:

- a) Separated/Divorced/ Widowed/Never married
- b) Informal/Consensual unions/Living together
- c) Married

Religion: Religion refers to the individual's religious affiliation as reported by the respondent, irrespective of the religion of the household head or the head's spouse or the name of the person. No attempt was made to find out if the respondents actually practiced the faith they professed. The study measured religion with reference to the following categories. The category "Others" is composed of accumulation of minor religious groups with negligible proportions in the data set

- a) Other Religions
- b) Traditionalists
- c) Muslims
- d) Christians

Ethnicity: Ethnicity refers to the ethnic group that a person belongs to. The study measured ethnicity with respect to the following categories Mande, Grusi, Mole-Dagbani, Gurma, Guan, Ewe, Ga-Dangme, and Akans. This is because they appear to be the major ethnic groups in

Ghana. The category “Others” is composed of the accumulation of minor ethnic groups with negligible proportions in the data set.

3.5 Model Specification

The binary logistic regression model constructed below is used to assess the efficacy of unemployment differentials in Ghana. In this regard, a model of socio-economic differentials of unemployment is specified as:

$$\log it P = \ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 \text{Primary} + \beta_2 \text{Secondary} + \beta_3 \text{Tertiary} + \beta_4 \text{Urban} + \beta_5 20 - 24 + \beta_6 (25 - 29) + \beta_7 (30 - 34) + \beta_8 (35 - 39) + \beta_9 (40 - 44) + \beta_{10} (45 - 49) + \beta_{11} (50 - 54) + \beta_{12} (55 - 59) + \beta_{13} (60 - 64) + \beta_{14} \text{Male} + \beta_{15} \text{Non Migrants} + \beta_{16} \text{Consensual Union} + \beta_{17} \text{Married} + \beta_{18} \text{Traditionalists} + \beta_{19} \text{Muslims} + \beta_{20} \text{Christians} + \beta_{21} \text{Others} + \beta_{22} \text{Mande} + \beta_{23} \text{Grusi} + \beta_{24} \text{Mole - Dagbani} + \beta_{25} \text{Gurma} + \beta_{26} \text{Guan} + \beta_{27} \text{Ewe} + \beta_{28} \text{Ga - Dangme} + \beta_{29} \text{Akan}$$

Where P denotes the probability of being Unemployed; X_i is a vector of explanatory variables, notably Level of Education, Place of residence, Age, Sex, Migration status, Marital status, Religion and Ethnicity. By virtue of the fact that Y is a latent variable, it can only be observed whether an individual is unemployed or otherwise.

3.6 Limitations of the Study

An important question which emerges with estimates of the unemployment rate is how accurate the figures are in terms of a realistic representation of the unemployment situation. There is no doubt that the failure to isolate part-time workers from full-time workers in the labour force tends to understate the unemployment situation. Also, the exclusion of discouraged workers from the labour force tends to downplay unemployment figures. For a developing country like Ghana,

with a relatively large informal sector, the problem of working on a part-time basis (with people working less than 8 hours a day) is likely to be an outstanding feature of labour market activities. It is therefore expected that while ‘open unemployment’ may be low, ‘underemployment’ is likely to be high and pervasive, especially in rural areas where agriculture is the main source of economic activity.

Furthermore, there has not been consistency in the type of questions used to elicit information on migration in previous censuses. For example, the 2000 PHC used “place of birth”, “place of usual residence” and “the place of residence 5 years ago” to elicit information on migration. In the 2010 census, the last question was replaced with “duration of residence”. The immediate problem is that technically the migration information from the two censuses cannot be compared without caution if the 2000 analysis was based solely on the place of residence 5 years ago. Again, data from the 2000 census would not allow the identification of duration of residence in the destination area, while the questions from both censuses are unable to capture the timing of the last move, as well as return migration that happened prior to the time of the censuses. As a consequence, results of census analysis underestimate actual mobility of people.

It is therefore worthy of note that, interpretation of the results of the analysis should bear in mind these limitations which arise because no specific question was asked on the activity segment to distinguish the respondents among open unemployed, underemployed as well as discouraged workers and the time variations of the PHC might downplay the meaning attached to the results of the analysis and its use.

CHAPTER FOUR

BACKGROUND CHARACTERISTICS OF RESPONDENTS

4.1 Introduction

This section is concerned with examining the background characteristics of the study population. The information will play an important role in the analysis of the socio-economic differentials associated with unemployment in the country, both in 2000 and 2010.

4.2 Socio-economic and Demographic Characteristics of Respondents

Table 4.1 shows the distribution of activity status, the level of education, type of place of residence, age, sex, migration status, marital status, and religious affiliation and ethnicity of the respondents.

The study sampled a total of 828,048 and 1,153,395 respondents of age 15-64 years in 2000 and 2010 Population and Housing Censuses respectively. Of this numbers, whereas, 686,446 (82.9 %) were employed and 141,602 (17.1 %) were unemployed in 2000, 1,096,762 (95.1 %) were employed and 56,633 (4.9 %) were unemployed in 2010.

Statistics from Figure 4.1 shows that in 2000, 45.9 percent of the respondents had no education, 36.8 percent had completed Primary/Middle/JSS education, 11.8 percent had completed Secondary/SSS/SHS education and 5.4 percent had higher education. Also, the overall proportion of economically active population living in urban areas in all the regions increased from 46.5 percent to 53.7 percent between 2000 and 2010 with an approximate proportion of reverse decline of the rural population in the period under review.

Table 4.1: Frequency and Percentage Distribution of Variables in 2000 and 2010

VARIABLES	2000		2010	
	Number	Percent	Number	Percent
Dependent Variable				
Employed	686446	82.9	1096762	95.1
Unemployed	141602	17.1	56633	4.9
Independent Variable				
Level of Education				
Never/No Education	380284	45.9	357222	31
Primary/Middle/JSS Education	305041	36.8	565488	49
Secondary/SSS/SHS Education	97969	11.8	174560	15.1
Post-Secondary/Tertiary Education	44754	5.4	56125	4.9
Locality				
Urban	385269	46.5	619167	53.7
Rural	442779	53.5	534228	46.3
Age				
15-19	101272	12.2	86638	7.5
20-24	136176	16.4	177975	15.4
25-29	133974	16.2	190749	16.5
30-34	109809	13.3	163564	14.2
35-39	93029	11.2	140421	12.2
40-44	77941	9.4	117854	10.2
45-49	62273	7.5	93182	8.1
50-54	50650	6.1	83259	7.2
55-59	30818	3.7	52480	4.6
60-64	32106	3.9	47273	4.1

Table 4.1 continuation

VARIABLES	2000		2010	
	Number	Percent	Number	Percent
Sex				
Female	441516	53.3	619695	53.7
Male	386532	46.7	533700	46.3
Migration Status				
Migrants	66197	8	217705	18.9
Non Migrants	761851	92	935690	81.1
Marital Status				
Separated/Divorced/Widowed/Never married	313076	37.8	430418	37.3
Informal/Consensual unions/Living together	63519	7.7	78992	6.8
Married	451453	54.5	643985	55.8
Religion				
Others	63215	7.6	83262	7.2
Traditionalists	69615	8.4	59868	5.2
Muslims	124584	15	199041	17.3
Christians	570634	68.9	811224	70.3
Ethnicity				
Others	12566	1.5	57034	4.9
Mande	9030	1.1	11989	1
Grusi	25142	3	27253	2.4
Mole-Dagbani	134269	16.2	172721	15
Gurma	29882	3.6	60336	5.2
Guan	34770	4.2	39849	3.5
Ewe	106092	12.8	159434	13.8
Ga-Dangme	69436	8.4	87111	7.6
Akans	406861	49.1	537668	46.6
TOTAL	828,048	100.0	1,153,395	100.0

Source: Author's calculations based on GPHC 2000 and 2010

Further, respondents aged 15-19 years and 20-24 years increased from, 237 thousand in 2000 to 264 thousand in 2010. These numbers accounted for about 20 percent of the sampled population within both periods. A situation in which 20 percent or more of a population is aged between 15-24 years has great potential for economic development and therefore calls for increase in job creation. Statistics show that the population aged 25-59 years increased by 5.6 percent between 2000 and 2010. Also, between 2000 and 2010 the proportion of 60-64 year-olds increased by a minimal rate of 0.2 percent.

In terms of type of place of residence, of 808048 sampled in the 2000 data, 46.5 percent (385,269) resided in urban areas and 53.5 percent (442,779) resided in rural areas. However, in 2010 the situation reversed with a higher proportion residing in urban areas compared to rural areas. Out of 1,153,395 sampled, 53.7 percent (619,167) resided in urban areas while 46.3 percent (534,228) lived in rural areas.

The 2000 Census showed that while 37.8 percent of the active population was single (separated, divorced, widowed or never married), 7.7 percent were in consensual union and 54.5 percent were married; statistics from 2010 Census depicts a steady decrease in the proportions single and in consensual unions with 37.3 percent and 6.8 percent respectively. However, the proportion married increased by 1.3 percent of the active population.

Regarding religion, Table 4.1 shows that the categories “Christians” and “Muslims” accounted for 68.9 percent and 15 percent of respondents in 2000 respectively but increased by 1.4 percentage point and 2.5 percentage point respectively in 2010. Meanwhile, the “Traditionalists” and “Others” categories in the 2000 census represented 8.4 percent and 7.6 percent, but the proportions fell by 3.2 percentage point and 0.4 percentage point respectively in 2010.

Ethnicity refers to the ethnic group that a person belongs to. Table 4.1 showing the reported ethnic affiliation, indicated that in 2010, Akan was the largest ethnic group in the country (46.6%) followed by Mole Dagbani (15.0%), Ewe (13.8%), Ga-Dangme (7.6%), Gurma (5.2%) and Guan (3.5%). The 2010 data showed very little difference in the ethnic composition of Ghana from that of 2000. While the proportions of the Akan, Ga-Dangme, Guan, and Grusi ethnic groups declined between 2000 and 2010, that of the Ewe, Gurma, and Mole-Dagbani ethnic groups increased during the same period with the proportion of Mande ethnic group remaining the same in the period under review.

CHAPTER FIVE

SOCIO-ECONOMIC DIFFERENTIALS OF UNEMPLOYMENT, 2000 AND 2010

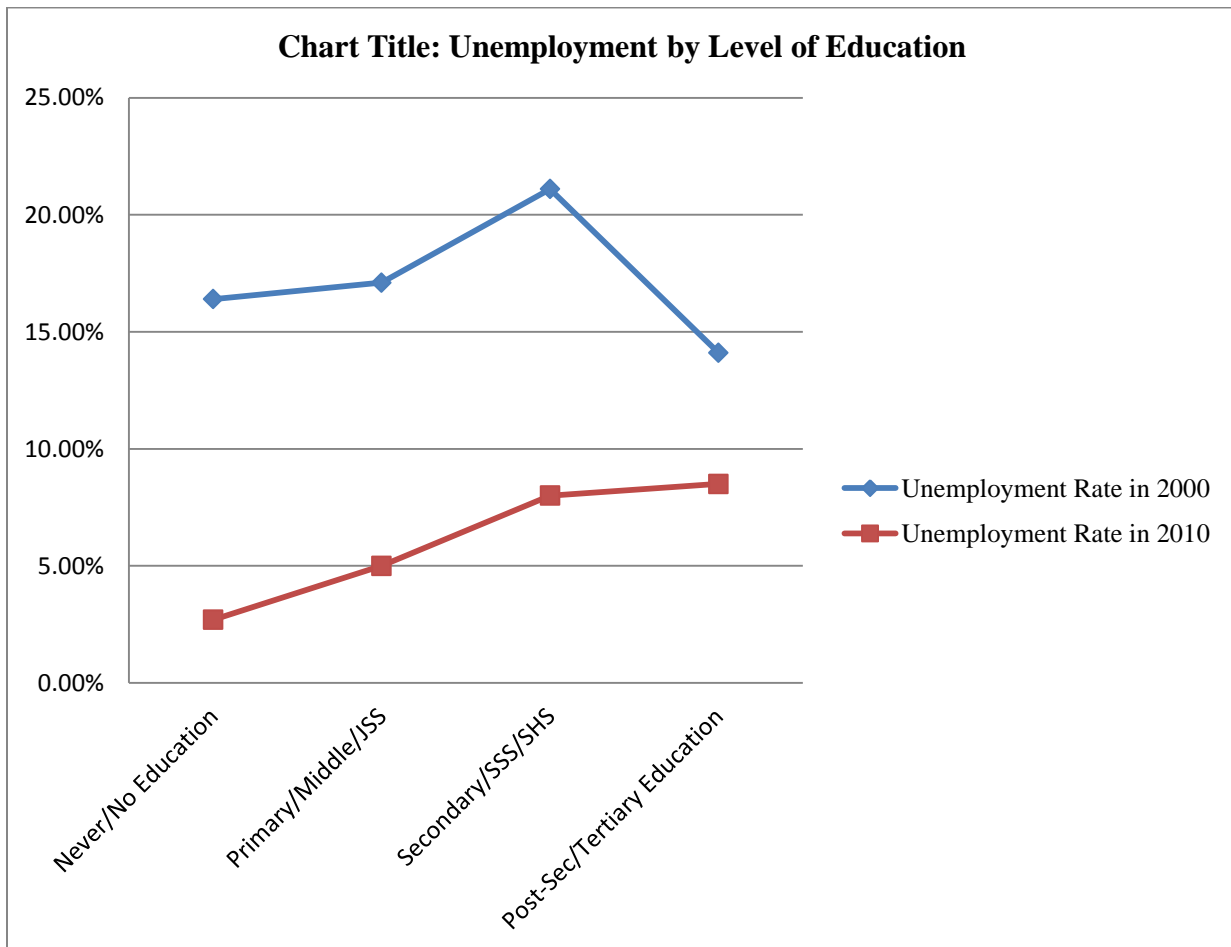
5.1 Introduction

This chapter looks at the socio-economic and demographic differences that may determine the pre-disposition of respondents to unemployment and the measurement of the relationship between the background characteristics and socio-economic variables. In each case, the unemployed are compared in terms of both periods, that is, 2000 and 2010.

The chapter as well entails charts illustrating the distribution of unemployment by the level of education and type of place of residence and tables depicting activity status by age, sex, migration status, marital status, religious affiliation and ethnicity of respondents.

5.2 Unemployment by Level of Education in Ghana, 2000 and 2010

Education is an important aspect of societal development. It is the process of acquiring knowledge, skills, values and attitudes to fully develop individual capacities for societal well-being. There is therefore a relationship between education and a person's employability. Figure 5.1 shows that unemployment rates were highest among persons with secondary education in 2000 (21.1 percent). In 2010, respondents with tertiary education (8.5 percent) appeared to be the highest followed by those with secondary school education (8.0 percent). While the category tertiary education had the least unemployment rate (14.1 percent) in 2000, the category no education however, recorded the least unemployment rate (2.7 percent) in 2010. From the chart, it also shows that there is a significant difference between a person's level of education and employment in both periods under review.

Figure 5. 1: Unemployment by Level of Education

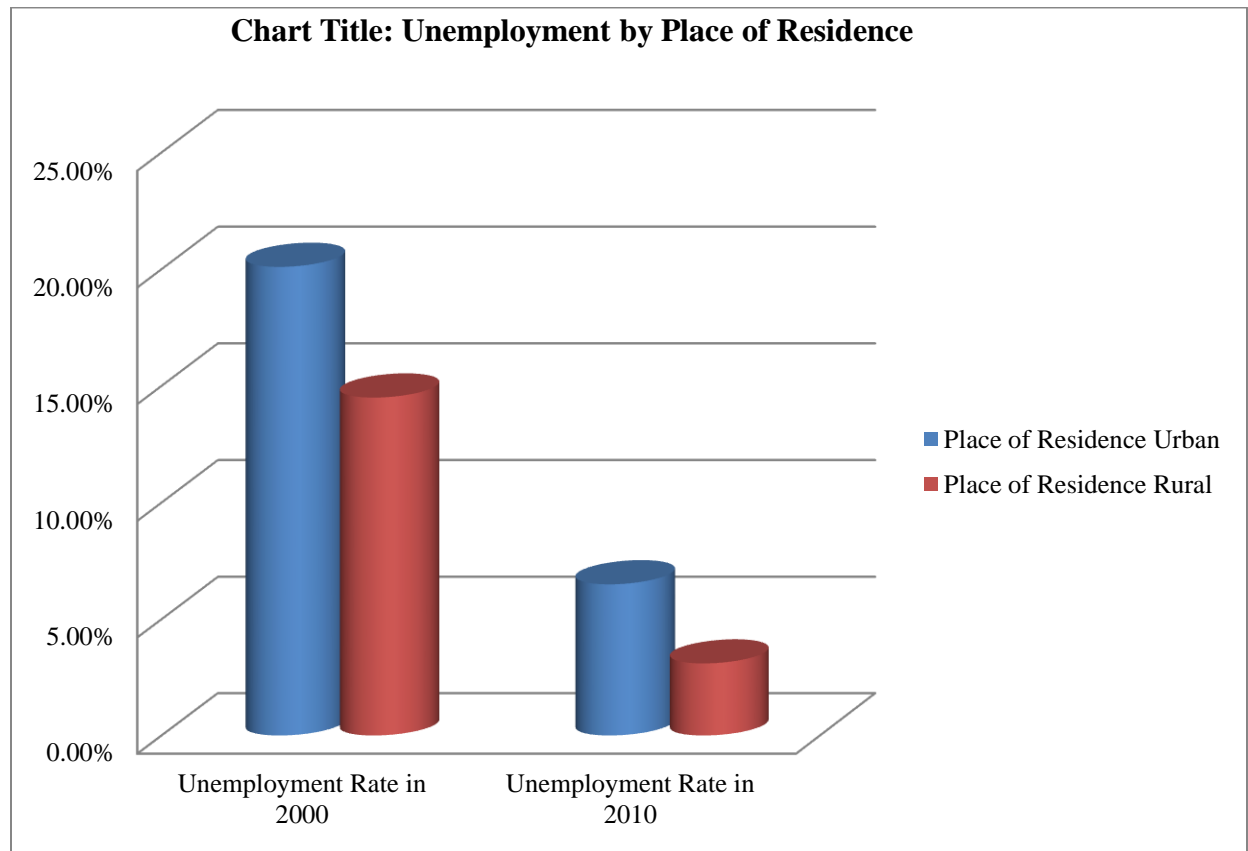
Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2 = 1520.544, 8985.440$ df = 3

Level of significance=***P<0.001 All values represent %

5.3 Unemployment by Place of Residence in Ghana, 2000 and 2010

In terms of locality, unemployment is more of a problem in urban areas than in rural areas. In rural areas almost the entire labour force is engaged in agricultural activities and very few find themselves in petty trading and food processing. It is therefore not surprising that urban unemployment from the chart (Figure 5.2) shows higher levels (20.1% and 6.5%) compared to the rural unemployment rate of (14.5% and 3.1%) in 2000 and 2010 respectively.

Figure 5. 2: Unemployment by Place of Residence

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2 = 4615.588, 7333.224$ df = 1

Level of significance=***P<0.001 All values represent %

5.4 Activity Status by Age Groups in Ghana, 2000 and 2010

Table 5.1 shows that, in 2000 unemployment rates were highest among persons aged 15-24 (32.9% and 23.9%) but lowest among older ages 55-64 (11.6% and 10.0%). Also, in 2010 the rates were higher among persons aged 15-24 (7.8% and 10.0%), with a relative lower rates among their older counterpart 55-64 (1.8% and 2.9%). This tells us that unemployment declines with age. Given the unemployment rates by age, one can infer that unemployment is associated with the transition period for young to old. This generally suggests that unemployment is a youth dilemma.

Table 5. 1: Activity Status and Age Groups

Age Groups	2000			2010		
	Unemployed	Employed	Total	Unemployed	Employed	Total
15-19	32.9	67.1	100	7.8	92.2	100
20-24	23.9	76.1	100	10.0	90.0	100
25-29	17.0	83.0	100	17.0	83.0	100
30-34	12.9	87.1	100	4.1	95.9	100
35-39	11.6	88.4	100	2.8	97.2	100
40-44	10.9	89.1	100	2.2	97.8	100
45-49	10.9	89.1	100	2.0	98.0	100
50-54	12.0	88.0	100	1.8	98.2	100
55-59	11.6	88.4	100	1.8	98.2	100
60-64	10.0	90.0	100	2.9	97.1	100
Total	17.1	82.9	100	4.9	95.1	100

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2 = 32240.289, 21527.740$ $df = 9$

Level of significance=*** $P < 0.001$ All values represent %

5.5 Activity Status by Sex in Ghana, 2000 and 2010

Unemployment in 2000 and 2010 was much higher for females than males. The female unemployment rate declined from about 19.8 percent to 5.1 percent during this period, while the male unemployment rate decreased from 14.0 percent to 4.7 percent. Given the unemployment rates by sex, one can infer that unemployment is associated more with females than males in Ghana.

Table 5. 2: Activity Status and Sex

Year	2000			2010		
	Unemployed	Employed	Total	Unemployed	Employed	Total
Female	19.8	80.2	100	5.1	94.9	100
Male	14.0	86.0	100	4.7	95.3	100
Total	17.1	82.9	100	4.9	95.1	100

Source: Compute from the GPHC 2000 and 2010

$\chi^2 = 4917.636, 106.533$ df = 1

Level of significance=***P<0.001 All values represent %

5.6 Activity Status by Migration Status in Ghana, 2000 and 2010

Migration is a socio-economic phenomenon which is a result of complex mechanisms involving social, psychological, economic, political and institutional determinants (GSS, 2012). The redistribution of population through migration is fashioned by a variety of demographic, geographic and socio-economic factors including the search for employment, distribution and utilisation of natural resources and infrastructural development, which result from local factors as well as policies, and programmes of government and non-governmental agencies. The outcome of this movement culminates into gradual urbanization and high unemployment prevalence. Table 5.3 gives a clear picture of the relationship between migration and unemployment in Ghana. While migrants' unemployment rate declined from about 17.8 percent to 6.5 percent during this period, the non-migrants unemployment rate also decreased from 17.0 percent to 4.5 percent in 2000 and 2010 respectively.

Table 5. 3: Activity Status and Migration Status

Year	2000			2010		
	Migrant Status	Unemployed	Employed	Total	Unemployed	Employed
Migrants	17.8	82.2	100	6.5	93.5	100
Non Migrants	17.0	83.0	100	4.5	95.5	100
Total	17.1	82.9	100	4.9	95.1	100

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2 = 22.817, 1456.358 \quad df = 1$

Level of significance=***P<0.001 All values represent %

5.7 Activity Status by Marital Status in Ghana, 2000 and 2010

Marital status is also used as one of the determinants of social status and an indicator of social achievement in some societies (Animashaun & Fatile, 2011). Marital status has implications for other demographic events such as migration which can determine a person's activity status. Table 5.4 shows that overall, a lower proportion of the respondents married were unemployed (13.4% and 2.9%) than their counterparts who were in consensual unions (14.5% and 5.9%) and the singles (23.0% and 7.8%) at the time of both censal years. This is possibly due to the large proportion of the younger population (that is, in the age group 15-19 years) compared to those who were relatively older. For some of the people, their activity status could be tied to that of their spouses. As is expected, the highest proportion of unemployment rate was recorded among the singles (23.0% and 7.8%) with the lowest among the married (13.4% and 2.9%) in both years.

Table 5. 4: Activity Status and Marital Status

Year	2000			2010		
	Unemployed	Employed	Total	Unemployed	Employed	Total
Separated/Divorced/Widowed/Never Married	23.0	77.0	100	7.8	92.2	100
Consensual Union	14.5	85.5	100	5.9	94.1	100
Married	13.4	86.6	100	2.9	97.1	100
Total	17.1	82.9	100	4.9	95.1	100

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2=12252.760, 13498.370$ df = 2

Level of significance=***P<0.001 All values represent %

5.8 Activity Status by Religion in Ghana, 2000 and 2010

With regards to religion, in 2000, Muslims recorded the highest proportion of unemployment rate (20.1%) among the active population. Also 16.9 percent of Christians (made up of Pentecostal, Charismatic and other Christian believers) were unemployed while 17.2 percent of Traditionalists were unemployed. The category "Others" formed the least proportion of the unemployed population (13.1%). On the other hand, in 2010, Christians recorded the highest proportion of unemployment rate (5.3%) among the active population followed by Muslims (4.4%) and Others (4.3%). Respondents affiliated to Traditional religious faiths recorded the least (1.8%).

Table 5. 5: Activity Status and Religious Affiliation

Year		2000			2010		
Religious Affiliation	Unemployed	Employed	Total	Unemployed	Employed	Total	
Others	13.1	86.9	100	4.3	95.7	100	
Traditionalists	17.2	82.8	100	1.8	98.2	100	
Muslims	20.1	79.9	100	4.4	95.6	100	
Christians	16.9	83.1	100	5.3	94.7	100	
Total	17.1	82.9	100	4.9	95.1	100	

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2=1529.051, 1717.189$ df = 3

Level of significance=***P<0.001 All values represent %

5.9 Activity Status by Ethnicity in Ghana, 2000 and 2010

From Table 5.6, Mole-Dagbani (21.7%) appears to be the ethnic group with the highest proportion of unemployed population in 2000 followed by Mande (20.5%), Grusi (18.4%), Others (17.9%). However, in 2010, Ga-Dangme, recorded the highest (5.9%) unemployed rate followed by Akans (5.5%), Others (4.9%), Ewe (4.8%). Furthermore, the Gurma ethnic group recorded the least rates with proportions of 11.9 percent and 2.4 percent of the unemployed in 2000 and 2010 respectively.

Table 5. 6: Activity Status and Ethnicity

Year	2000			2010		
Ethnicity	Unemployed	Employed	Total	Unemployed	Employed	Total
Others	17.9	82.1	100	4.9	95.1	100
Mande	20.5	79.5	100	4.6	95.4	100
Grusi	18.4	81.6	100	4.1	95.9	100
Mole-Dagbani	21.7	78.3	100	3.6	96.4	100
Gurma	11.9	88.1	100	2.4	97.6	100
Guan	16.1	83.9	100	4.7	95.3	100
Ewe	15.7	84.3	100	4.8	95.2	100
Ga-Dangme	16.7	83.3	100	5.9	94.1	100
Akans	16.3	83.7	100	5.5	94.5	100
Total	17.1	82.9	100	4.9	95.1	100

Source: Author's calculations based on GPHC 2000 and 2010

$\chi^2=3063.158, 2103.413$ df = 8

Level of significance=***P<0.001 All values represent %

5.10 Chapter Summary

In the above analysis, unemployment by each of the independent variables showed statistical significance. This therefore shows the importance and influence of each of the independent variables in determining a person's unemployment situation in Ghana in 2000 and 2010.

CHAPTER SIX

UNDERSTANDING THE FACTORS AFFECTING UNEMPLOYMENT IN GHANA, 2000 AND 2010

6.1 Introduction

The study used the binary logistic regression technique for multivariate analysis. With this technique, three models were run for both years. The first looked at the influence of level of education on unemployment. The second model examined the influence of place of residence on unemployment while the third model regressed unemployment on level of education, place of residence, age, sex, migration status, marital status, religion and ethnicity.

The results of the binary logistic regression analysis are presented in Tables 6.1., 6.2 and 6.3 relating to 2000 and 2010.

6.2 Level of Education and Unemployment in Ghana, 2000 and 2010

The results in Table 6.1 indicate that the level of education explained 0.3% of the variation in unemployment among the respondents in 2000 compared to 0.9% in 2010.

Education showed a statistically significant relationship with unemployment in model one in both years. As is seen in Table 6.1, in 2000, respondents with primary and secondary education were 5.1 percent and 36.3 percent more likely to be unemployed compared to their counterparts with no education. Further, those with tertiary education were 16.2 percent less likely to be unemployed ($p < .001$) compared with those with no education. Outcome from the 2010 analysis showed that in model 1, unemployment was lower with higher education.

From the results in Table 6.1 for example, while respondents with primary school education were 94.6 percent more likely to be unemployed than their counterparts with no education, the

corresponding figures for others with secondary and tertiary/higher levels of education were 200.1 percent and 200.4 per cent more likely to be unemployed than their counterparts with no education in 2010. The reason for such an indication could probably be viewed from the kinds of jobs people with no education are involved in which are mostly jobs that require less or no skills at all. Also, government's incapacity to provide decent jobs to absorb the increasing number of graduates in the country could as well be an explanation for this outcome.

Table 6. 1: Logistic Regression Models of the effect of Level of Education on Unemployment in Ghana, 2000 and 2010.

Variable	2000 Model 1: Unemployment			2010 Model 1: Unemployment		
	B	S.E.	Odds ratio	B	S.E.	Odds ratio
Level of Education						
Never/No Education			1.000			1.000
Primary/Middle/JSS	0.049	0.007	1.051***	0.666	0.012	1.946***
Secondary/SSS/SHS	0.310	0.009	1.363***	1.157	0.014	3.179***
Post-Secondary/Tertiary Education	-0.177	0.014	0.838***	1.229	0.018	3.417***
Constant	-1.628			-3.603		
No. of Respondents	828048			1153395		
Model chi Square	1474.281			8934.781		
df	3			3		
R2	0.003			0.024		
-2 log likelihood	756155.4			442873.172		
Sig.	0.000			0.000		

Source: Generated from the GPHC 2000 and 2010 dataset

***p < 0.01; **p < 0.05; * p < 0.10

6.3 Place of Residence and Unemployment in Ghana, 2000 and 2010

The results of the analysis presented in Table 6.2 showed that, place of residence explained 2.4 percent of the variation in unemployment among respondents in 2000 compared to 2.3 percent in 2010.

Place of residence showed a highly statistically significant result ($p < 0.001$) in both years. Rural residents were 32.8 percent less likely to be unemployed compared to urban residents in 2000. Nevertheless, in 2010, the figure increased, showing 54.7 percent less likelihood of rural residents being unemployed compared to their urban counterparts.

Table 6. 2: Logistic Regression Models of the effect of Place of Residence on Unemployment in Ghana, 2000 and 2010.

Variable	2000 Model 2: Unemployment			2010 Model 2: Unemployment		
	B	S.E.	Odds ratio	B	S.E.	Odds ratio
Place of Residence						
Urban			1.000			1.000
Rural	-0.397	0.006	0.672***	-0.793	0.009	0.453***
Constant	-1.379			-2.664		
No. of Respondents	828048			1153395		
Model chi Square	4605.071			7617.5576		
df	1			1		
R2	0.009			0.020		
-2 log likelihood	753024.6			444190.377		
Sig.	0.000			0.000		

Source: Generated from the GPHC 2000 and 2010 dataset

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

6.4 Factors affecting Unemployment in Ghana 2000 and 2010

In the case of the two independent variables together with control variables in Table 6.3, shows that, in all, the independent variables explain just a small proportion of the variation in the dependent variable: 9.0 percent and 9.3 percent of unemployment respectively.

About education, respondents with primary education showed a lower likelihood of being unemployed (6.4%) compared with those with no education. Also, respondents with tertiary education (26.0%) showed a higher likelihood of being unemployed in 2000 in comparison to those with no education ($p < 0.001$). However, in 2010, even though there was a decline in the likelihood of a respondent with tertiary education's probability of being unemployed (22.5%), the result was lesser compared with those with primary education (57.6%) and secondary education (42.6%) likelihood of being unemployed with respect to those with no education.

The results of the analysis as presented in Table 6.3 also showed a highly statistically significant result ($p < 0.001$) in both years pertaining to place of residence. Rural residents were 46.7 percent more likely to be unemployed compared to urban residents in 2000. But, in 2010, rural residents were 68.5 percent more likely to be unemployed compared to their urban counterparts.

Comparing 2000 to 2010 almost all respondents of the indicated age groups showed a lower likelihood of being unemployed compared to the reference age group (15-19). But even though in 2000, respondents aged 20-24 years were 35.2 percent less likely than the 15-19 of being unemployed in 2010, they were 18.1 percent more likely than the 15-19 of being unemployed. In contrast, 55-59 year-old respondents were about 69.4 percent and 75.2 percent less likely to be unemployed than 15-19 in both years respectively. Also those between 60-64 year-old

respondents were about 74.6 and 55.8 percent less likely to be unemployed than 15-19 in the period under review. These results were highly significant.

Table 6. 3: Logistic Regression Models of factors affecting Unemployment in Ghana, 2000 and 2010.

Variables	Model 3: Unemployment 2000			Model 3: Unemployment 2010		
	B	S.E.	Odds ratio	B	S.E.	Odds ratio
Level of Education						
Never/No Education			1.000			1.000
Primary/Middle/JSS	-0.066	0.015	0.936***	-0.859	0.02	0.424***
Secondary/SSS/SHS	-0.019	0.015	0.982	-0.555	0.017	0.574***
Post- Secondary/Tertiary Education	0.231	0.016	1.260***	-0.255	0.018	0.775***
Place of Residence						
Urban			1.000			1.000
Rural	0.383	0.007	1.467***	0.522	0.001	1.685***
Age Group						
15-19			1.000			1.000
20-24	-0.434	0.010	0.648***	0.167	0.015	1.181***
25-29	-0.814	0.011	0.443***	-0.181	0.016	0.834***
30-34	-1.089	0.012	0.337***	-0.599	0.019	0.549***
35-39	-1.189	0.013	0.304***	-0.904	0.022	0.405***
40-44	-1.242	0.014	0.289***	-1.115	0.025	0.328***
45-49	-1.236	0.015	0.291***	-1.221	0.028	0.295***
50-54	-1.141	0.016	0.320***	-1.334	0.030	0.263***
55-59	-1.185	0.020	0.306***	-1.393	0.036	0.248***
60-64	-1.368	0.020	0.254***	-0.816	0.031	0.442***
Sex						
Female			1.000			1.000
Male	-0.488	0.006	0.614***	-0.171	0.009	0.842***
Migration Status						
Migrants			1.000			1.000
Non Migrants	0.005	0.011	1.005	-0.08	0.01	0.923***

Source: Generated from the GPHC 2000 and 2010 dataset

***p < 0.01; **p < 0.05; * p < 0.10

Table 6.3 continuation.

Variables	Model 3: Unemployment 2000			Model 3: Unemployment 2010		
	B	S.E.	Odds ratio	B	S.E.	Odds ratio
Marital Status						
Separated/Divorced/Widowed/Never			1.000			1.000
Married						
Consensual						
Union	-0.268	0.013	0.765***	-0.153	0.017	0.858***
Married	-0.269	0.007	0.764***	-0.519	0.011	0.595***
Religion						
Others			1.000			1.000
Traditionalists	0.331	0.017	1.392***	-0.268	0.036	0.765***
Muslims	0.189	0.015	1.208***	0.035	0.022	1.036
Christians	0.100	0.013	1.105***	-0.031	0.018	0.969
Ethnicity						
Others			1.000			1.000
Mande	0.197	0.036	1.218***	-0.049	0.049	0.953
Grusi	0.201	0.029	1.223***	-0.021	0.037	0.979
Mole-Dagbani	0.360	0.025	1.433***	-0.084	0.024	0.919***
Gurma	-0.378	0.031	0.685***	-0.355	0.034	0.701***
Guan	-0.045	0.029	0.956	0.065	0.031	1.067**
Ewe	-0.058	0.026	0.944**	0.025	0.024	1.025
Ga-Dangme	-0.011	0.027	0.990	0.141	0.026	1.151***
Akans	-0.040	0.025	0.960	0.098	0.022	1.103***
Constant	-0.771			-1.936		
No. of Respondents	828048			1153395		
Model chi Square	45951.799			35339.95		
Df	28			28		
R2	0.090			0.093		
-2 log likelihood	711677.9			416468.001		
Sig.	0.000			0.000		

Source: Generated from the GPHC 2000 and 2010 dataset

***p < 0.01; **p < 0.05; * p < 0.10

It is also observed in Table 6.3 that, in 2000 males were 38.6 percent less likely than their female counterparts of being unemployed. However, in 2010, male's likelihood of being unemployed was 15.8 percent less than that of their female counterparts. In the case of migration status, non-migrants were 0.05 percent more likely to be unemployed compared to their migrant counterparts in 2000. Yet, in 2010, non-migrants were 7.7 percent less likely to be unemployed compared to their migrant counterparts.

It is further seen that marital status had a statistically significant relationship with unemployment in Table 6.3. Respondents, who were in consensual unions and marriage, were less likely to be unemployed compared with their single counterparts in 2000 (23.5 and 23.6% respectively). However, in 2010, the analysis showed that respondents who were in consensual unions and marriage were 14.2 and 40.5 percent less likely to be unemployed compared to their single counterparts.

Concerning religion, in 2000, the analysis produced statistically significant results ($p < .001$), with Traditionalists, Muslims and Christians being 39.2, 20.8 and 10.5 percent are more likely to be unemployed than other religious affiliates. Results in 2010 nonetheless showed that, only Traditionalists appeared statistically significant; being 23.5 percent less likely than Other religious affiliates to be unemployed. Another relevant outcome from the analysis was that of the variable ethnicity.

In 2000, respondents affiliated to Mande showed a higher likelihood of being unemployed (21.8%) compared to those with Grusi (22.3%) and Mole Dagbani (43.3%) which showed a higher likelihood of being unemployed. Gurma and Ewe on other hand were 68.5 percent and 94.4 percent less likely to be unemployed respectively compared with respondents affiliated to

other ethnic groups ($p < 0.001$). Nonetheless, in 2010, respondents affiliated to Gurma showed a lower likelihood of being unemployed (29.9%) compared with those affiliated to Mole Dagbani which as well showed a lower likelihood of being unemployed (8.1%). Guan, Ga Dangme and Akan also showed 6.7, 15.1 and 10.3 percent more likely to be unemployed respectively compared with respondents affiliated to other ethnic groups.

6.5 Discussion of Results

The finding that a relatively higher proportion of the respondents with secondary, primary and no education who were unemployed in 2000 and 2010 suggest that these groups of Ghana's active labour force perhaps lack requisite skills demanded by the existing job and also due to the relatively lower levels of such education compared to those with tertiary education. This finding confirms the first hypothesis of the study that unemployment differentials in Ghana are associated with people with no education. However, an emerging concern about unemployment is the gradual increase of unemployment rate among the tertiary graduates in Ghana.

Ghana's unemployment is also found to be more prevalent in urban than rural areas. The regular migration of people from rural areas to the urban centres in search of better economic prospects which are not easy to come by, largely explains the phenomenon of the high urban unemployment rate in Ghana. The non-attraction of rural life due to the absence of amenities such as electricity and water among other things and the low income associated with rural economic activity, dominated by farming, also tend to push many rural youth into the cities. This is consistent with the finding in this study that a higher proportion of the unemployed were residents in urban areas compared with the rural areas. It also confirms the second hypothesis of

the study that unemployment differentials in Ghana are associated with people in urban dwellings.

Another important finding was a higher unemployment rate among those 15-19 years and 20-24 years compared with older counterparts 55-59 and 60-64 in 2000 and 2010. These results are expected as the 15-24 year-olds are those who have completed one level of education or the other and are entering the job market for the first time. However, this observation could be explained by the fact that the youth are more vulnerable in times of economic challenges than their older counterparts as a result of their limited labour market experience. In addition, they also lack job search experience and labour market information to facilitate their job acquisition. Even in times of economic upturn, lack of work experience combined with lack of social capital puts the youth at the disadvantage for new job opportunities.

Furthermore, in both 2000 and 2010 bivariate analysis showed that female's proportions of unemployment rate were higher than that of their male counterparts in the country. The higher unemployment rate among women than men in recent times has been attributed to the increasing desire of women to participate in market work reflecting in the consistent increase in the labour force participation rate of women against the backdrop of fewer employment opportunities. Also the situation depicts that there are a good number of women who are still housewives in the country.

The logistic regression models run on unemployment provided useful insights into the activity status of migrants and non-migrants. From the results, non-migrants were about 0.05 percent more likely to be unemployed to their counterpart migrants in 2000 but 7.7 percent less likely to be unemployed migrants in 2010. The result tells us the rate at which people have moved

between the periods under review. This movement is often toward the urban settings relative to the rural environment where much of the anticipated job may be non-existent. Such a situation could have some influence on the attitude of town or city dwellers towards crime and other social vices.

Similarly, a relatively lower proportion of respondents unemployed were found to be in consensual union (6.5% and 8.3%) in 2000 and 2010 respectively. This could be due to the fact that one expects to get a well-paid job before marrying. In Ghana, it is quite common for marriages to be contracted or consummated shortly after one gets employment. This explains why the respondents in consensual union were found to have relatively lower proportion than the singles (50.8% and 59.1%) in both years. It has to be noted, however, that as respondents move from single status into marriage unemployment rate reduces (42% and 32.6%). Unemployment in both years showed statistically significant among the various religious and ethnic groups. This shows that not much difference exists between the religious and ethnic groups as far as unemployment is concerned in Ghana.

Overall, the variation in the dependent variable namely, unemployment that was explained by the independent variables was found to be quite low (that is, below 15 percent). This calls for further research to broaden the analysis to cover more variables in order to understand the relevant factors involved.

6.6 Chapter Summary

From the analysis, both level of education and place of residence in Tables 6.1 and 6.2 respectively showed high statistical significance in the unemployment model in both years. But in Table 6.3, virtually all variables produced statistically significant results with the exception of

categories labelled Secondary education, Non-migrants, Guan, Ga-Dangme and Akan in 2000. Also, Muslims, Christians, Mande, Grusi and Ewe were categories which showed statistically insignificance in 2010.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 Summary

The study of unemployment is a very important indicator of a country's economic growth. Unemployment is therefore a phenomenon of job-seeking resulting out of joblessness. In effect, a jobless person who is available for work but fails to make an effort to seek work is described as a discouraged worker rather than unemployed. Additionally, a person who is working but engages in job-seeking for the purpose of obtaining additional income or diversifying his/her job portfolio among other reasons as a moonlighter (Baah Boateng et al., 2013) cannot be described as unemployed. The study sought to examine the socio-economic levels and variations of unemployment as well as the socio-economic and demographic factors that affect unemployment.

The dependent variable was unemployment with level of education and place of residence being the independent variables. Age, sex, migration status, marital status, religion and ethnicity were used as control variables for the study. This is because it is assumed that unemployment is one way or another being influenced by these different variables. The study employed bivariate analysis to examine the relationship between both the independent and control variables and unemployment in the country. Binary logistic model was used to run three separate models to observe the effect of these variables on unemployment.

The models support the importance of level of education, place of residence and demographic characteristics as important determinants of the incidence of unemployment in the country. The

study found a strong positive association between unemployment and level of education and unemployment and place of residence.

The study revealed that unemployment rate was highest among those with Secondary/SSS/SHS education followed by persons with primary, no education and tertiary education in 2000. But it was observed in 2010, that graduate unemployment is on the rise as respondents with tertiary education recorded the highest rate followed by Secondary/SSS/SHS, primary and people with no education respectively. Comparing the proportions of graduate unemployment in both years suggests growing lack of job creation and job expansion in the country. This may also indicate the problem of high job preference among tertiary graduates. Moreover, the reduction in unemployment rate among those with no education signals their rate of involvement in the informal sectors of the economy.

The relatively high unemployment rate in urban areas implies how rapid urbanization is taking place in the country and this consequentially increases unemployment in these areas. The incidence of unemployment is currently, 71.2 percent in urban areas and 28.8 percent in rural areas (GSS, 2010).

Unemployment among the youth (15-24) emerged as one of the challenges which will need to be addressed. Unemployment was found to be higher among those aged 15-24 years, compared to their older counterparts (55-64) most of who were seeking for jobs for the first time. The higher rate of unemployment among this age group (15-24) coincides with the transition from various levels of education to the world of work. This is in line with literature which argues that unemployment is more likely to be associated with the youth compared to the old.

The analysis of unemployment brought to light the fact that unemployment rates were higher in 2000 and 2010 for females than males. While females recorded 19.8 percent and 5.1 percent in both 2000 and 2010, males recorded 14.0 percent and 4.7 percent in the same period under review. It was also found that, non-migrants were about 0.05 percent more likely to be unemployed than their migrant counterparts in 2000 but 7.7 percent less likely to be unemployed compared to their migrant counterparts in 2010.

At the multivariate level, the study also demonstrated high statistical significance of unemployment with marital status, religion and ethnicity.

7.2 Conclusion

The main objective of this study was to examine the overall characteristics of unemployment within Ghana's labour market, particularly to observe the socio-economic variations, levels and trends of unemployment rates in Ghana between 2000 and 2010 and suggest the way forward towards reduction of the problem. The study used Binary Logistic Regression to analyse the relationship between unemployment and background characteristics of respondents notably level of education, place of residence, age, sex, migration status, marital status, religion and ethnicity for 2000 and 2010 in Ghana. The dependent variable of the study was unemployment status. The study used secondary data from the 2000 and 2010 Ghana's Population and Housing Census (PHC) provided by the Ghana Statistical Service which so far is the most current census.

From the findings of the study, it can be concluded that educational level, geographical location, age group, migration status and marital status are all significant factors in explaining the difference in unemployment status in Ghana. The findings of the study show that level of education was a significant determinant of unemployment and people with tertiary education

stood a high chance of being employed over being unemployed as compared to Secondary/SSS/SHS education, primary education and no education in 2000. The study also found geographical location of the people to be a significant factor in determining a person's activity status. People who were living in rural areas compared to urban areas in 2000 was found to be almost two times less likely to be unemployed over being employed than in 2010. The results on respondents' level of education showed that people who have Secondary/SSS/SHS education, primary education and those with no education at all are more likely to be unemployed over being employed in 2000; with those with Secondary/SSS/SHS education being the highest. However, in 2010, it appeared that the higher one's level of education, the higher their chances of being unemployed.

The study findings also indicate that age was a significant determinant factor. Fifteen to twenty-four years olds (15-24) were found to have a high likelihood of being unemployed over being employed as compared to their older counterparts (25-64 years). Further, unemployment rates were higher for females than males in both 2000 and 2010.

7.3 Recommendations

Unemployment has been a very consistent problem and remains difficult to manage in order to maintain relatively low rates in Ghana. It has been a broad macroeconomic objective of the Ghana government. Therefore the following measures can be deployed to help deal with the problem.

The current stand in the country's unemployment situation calls for rapid creation of jobs if the human resources available at this point in time are to be used productively. Both 'job creation' and 'job expansion' are needed to address the unemployment incidence, especially in urban

areas. Job expansion would ensure the absorption and balance with the growth of the unemployed population.

The high youth unemployment coincides with the transition from various levels of education to the world of work. This is one area which would need to be managed with pragmatic policies such as apprenticeship and start-up capital so as to reduce the proportion of unemployed youth. Ghana can as well resort to provision of other entrepreneurial training and start-up support would attract these young secondary school leavers into setting up small enterprises and grow them gradually. The Kenya Youth Business Trust which provides start-up capital and training as well as mentorship for fervent and passionate young people who desire to go into entrepreneurial business (UNECA, 2011) is one example of such initiatives that could encourage young people to take up entrepreneurship. Another exemplary initiative is by Synapse Centre, a non-governmental organization in Dakar in 2003 which gives opportunities for young people to undergo highly intensive hands-on youth entrepreneurship training that combines theory with interactive case based studies and professional business consulting and mentoring with 9 youth participants benefiting from mentorship from 35 business community leaders (UNECA, 2006) is another useful case study (Baah-Boateng, 2014).

Given the fact that the incidence of unemployment in rural areas has increased between 2000 and 2010, there is the need to improve agricultural activities so as to provide adequate employment for the growing rural population. The policy challenge is to provide alternatives to agriculture in rural areas. For instance, non-agricultural activities such as small-scale manufacturing or food processing activities in a cooperative or community development approach could be a good starting point in dealing with the unemployment situation in rural areas. This may require the blending of technology into agricultural production. Part of the strategy will be to improve the

educational background of the agricultural workforce. Furthermore, government should develop strategies aimed at processing agricultural produce into value-add products and packaged for the export market. By this, place of residence should not be a source of disadvantage in human resource utilisation and further help reduce the high rate of migration in the country.

Moreover, the major policy implication is that government should provide support for growth of private sector firms and informal sector activities. Such a situation will ultimately result in a further decline in the unemployment rate, and with this will ensure tendency for accelerated economic growth.

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